Run

```
AC13666 Rattus no AC094607 Rattus no BC053104 Mus muscu AC112808 Rattus no BC053104 Mus muscu CQ714295 Sequence AC08413 Homo sapi AC024396 Homo sapi BC081195 Kenopus 1 CC547124 Danic rer BX005071 Zebrafish AC132455 Zebrafish AC132455 Zebrafish AC13245 Rattus no AC13213 Mus muscu AC140213 Mus muscu AC140213 Mus muscu AC150136 Gallus ga AC150054 Gallus ga CQ876260 Sequence CQ781212 Sequence CQ781218 Sequence AC03469 Homo sapi AC011454 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 18-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITGIGGAAAGAACCAGIGACACCAICACTGAGCTICCTAAAAGTICGAAGAAGTTAGAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 ACTGTTAGAGGGGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTATACACTTTTCTTTTTTTTTATAATATTTTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTATACACTTTCTTTTGAACTTTTATAATATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unknown.
Unclassified.
1 (bases 1 to 1507)
Gray,J., Collins,C., Hwang,S.-i., Godfrey,T., Kowbel,D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6; Length 1507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genes from the 20013 amplicon and their uses Patent: US 5822010-A 3 06-APR-1999;
Location/Qualifiers
1..1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.9%; Score 1504.8; 100.0%; Pred. No. 0; ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3 from patent US 5892010.
AR070326
                                                         BC053104
AC142100
CQ714295
AC018413
                                                                                                                                                                                                                                                   AL732455
AC024898
BC033594
AK122270
                                                                                                                                     AC024396
AC009716
D86975
BC081149
                                                                                                                                                                                                                                                                                                                                                                                     AC150136
AC150054
CQ876260
CQ718121
                                                                                                                                                                                                             CR547124
BX005071
                                                                                                                                                                                                                                                                                                                                                 AC094062
AC133822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AR070326.1 GI:7221214
                                                                                                 1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.
Matches 1507; Conservative
   7.6 212026

7.6 244851

7.0 2434

7.0 4934

7.0 175110

7.0 175110

7.0 112797

7.0 112797

7.0 112797

6.4 8111

6.4 8211

6.3 192278

6.3 192278

6.3 192278

6.3 19268

6.4 8111

6.6 8211

6.7 8211

6.8 821

6.9 821

6.1 821

6.1 821

6.3 10268

6.4 811

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.4 826

6.6 826

6.7 826

6.8 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826

6.9 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unknown.
                                                                                                                                                                                                             1114.4
1114.4
1114.4
1105.4
1104.8
1104.8
1104.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1
AR070326
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
     ORIGIN
                                                                             υ
                                                                                                                   ט ט
                                                                                                                                                                                                                                                                                                                                                                         ט ט
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus no
Rattus no
5 Mouse DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC072191 Xenopus 1
AF419155 Xenopus 1
AX895965 Sequence
BD031498 Sequence
BD060160 Secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genes fro
Genes fro
Trypanoso
Homo sapi
Sequence
Homo sapi
Sequence
Genes fro
                                                                                                                               June 28, 2005, 14:57:12 ; Search time 4329.72 Seconds (without alignments) 16865.305 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                   1 GCAGGTTGCTGGGATTGACT.......GGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC116668 T
AL5312915 H
AL157086 S H
AR157086 S H
AC072629 H
CO72629 H
AC118373 R
AC099079 R
AC09072 A
AC07219 X
AC07219 X
AC07219 X
AC07219 X
AC07219 S K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AR070326 8
BD085727 C
BD085733 C
                                                                                                                                                                                                                                                                                                                                                                                         9416466
                       5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                   4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                       version 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AR070326
BD085737
BD085733
AC116668
AC116668
AL157838
AL157086
AR157086
AR041259
AC0726255
BD085734
AC118373
AC099079
                                                                                                 nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC023610
BC072191
AF419155
AX895965
BD031498
BD060160
                                                                                                                                                                                                                                                                                       IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                       GenCore (c) 1993 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                               US-08-731-499-3
1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gb ba: *
gb ntg: *
gb om: *
gb ow: *
gb pat: *
gb pat: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gb_ro:*
gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5632
5632
5633
3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184420
246332
114285
208979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3512
2750
298
298
469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121143
128871
                                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75:
77:
70:
10:
                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1504.8
11504.8
11504.8
11307.2
11387.2
11337.2
11337.2
11337.2
1108.6
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
614.2
61
                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                 OM nucleic
                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
```

ö

Result No.

υ

ð g 8 8 셤 õ

```
PI JOE W GRAY, COLINS, SOO IN HWANG, TONY GODFREY, PI DAVID KOWBEL,
PI JOHANDA ROMMER,
PI JOHANDA ROMMER,
PI CLEMIS/11, Cl2201/68, A61K48/00
CC Description of Artificial Seminary CC N is A, G, T, Or TE FE KEY
                                                                                        1500
 1321 GAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCC 1380
                                                                                                                      1500
                                                                                                                                                                                                                                                        27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 ACTGTTAGAGGGTGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                     CACTAATGCTTTGTGTTTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTGTGGAAAGAACCAGTGACCATCACTGAGCTTCCTAAAAGTTGGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTATACACTTTCTTTTGAACTTTTATAATAAATATTTTGCTCTGGTTTTTGGAACCCAGG
                               CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCCAGTAGCAAGGAGAAGCCC
                                                 CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                          other sequences, artificial sequences.
1 (bases 1 to 1507)
Gray,J.W., Collins,C.C., Hwang,S.I., Godfrey,T., Kowbel,D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ecaeerrecreearreacrrcrrecreaarreaacacrearreaareseareacaaeaeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                        PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1507;
                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  Genes from the 20q13 amplicon and their uses Patent: JP 2001224802-A 3 04-DBC-2001;
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
OS Artificial Sequence
PN JP 2001524802-A/3
PD 04-DBC-2001
PP 15-JUL-1997 JP 1998506264
PR 15-JUL-1996 US 08/680395,16-OCT-1996 US
                                                                                                                                                                                                                                               Genes from the 20q13 amplicon and their uses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D KOWBEL,
JOHANNA ROWMENS
JOHANNA ROWOFFIL, C1201/5/11, C1201/5/168, A61K48/00
Description of Artificial Sequence: cc49
N is A, G, G, T, or U
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
1. 1507
/organism="synthetic construct"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1504.8;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA'
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
                                                                                                                                                                                                                                                                                                    BD085727.1 GI:22631337 JP 2001524802-A/3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.9%; So
                                                                                                                                                                                                                                                                                                                                 synthetic construct
synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                  AGGGTCC 1507
                                                                                                                                                                               AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1507; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                            Rommens, J.
                                                              1381
                                                                                                                                                   1501
                                1381
                                                                                          1441
                                                                                                                       1441
                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                     DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                           RESULT 2
BD085727
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                           8
                                                         셤
                                                                                       Š
                                                                                                              셤
                                                                                                                                                  ò
                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAACAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA 1140
                                              360
                                                                            360
                                                                                                         420
                                                                                                                                    420
                                                                                                                                                                   480
                                                                                                                                                                                             480
                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                       ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081 CAAGGAGGAGTGCCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCGGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201 ACCTTCCAGGCTTGGCAKCTGGCTACCAAGGAAWAGTTGCCATTTGCCAAGAAGTAGAAG
CTTAATGTACATGGATGCCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                                                                            ACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAG
                                                            CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                             GAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAA
                                                                                                                                                                                                                            ATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTC
                                                                                                                                                                                                                                                                                       ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                 CCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGA
                                                                                                                                                                                                                                                                                                                                                                             ccagcagrictrcaggricaagcagagrarcrcagrccgcrrgaraaagrcaagracga
                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAAACTGCAGCAAGGCTTGGAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCGGACRCATAATGCCAAATCGGGGCCAGAAGCAAACTGCAGGCAAGGCTTGGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA
                                              AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCCCT
                                                                                                                                                                   GAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAAA
                                                                                                                                    361 (
                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                         361
                                                                                                                                                                   421
                                                                                                                                                                                               421
                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
```

셤

ò 유 ઠે

셤 ઠે a õ g

ò a ò g

a

ò g ò g ò g ð

ò

ö

qq

ò

셤

ઠે

g

	AC116668 105023 bp DNA linear HTG 01-MAY-2002 Trypanosoma brucei chromosome V clone RPC193-45E22, *** SEQUENCING IN PROGRESS ***, 3 unordered pieces. ON AC116668. AC116668.5 GI:20376999 I Trypanosoma brucei ITYPANOSOMA brucei ISM Trypanosoma brucei ITYPANOSOMA brucei Bukaryota; Buglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma brucei		Medical Center Dr. Rockville, MD 20850, USA 3 (Dases 1 to 105023) 81-Sayed,N.M., Khalak,H. and Adams,M.D. Direct Submission Submitted (01-MAY-2002) The Institute for Genomic Research, 971 Medical Center Dr. Rockville, MD 20850, USA on May 1, 2002 this sequence version replaced gi:20340472. * NOTE: This is a 'working draft' sequence. It currently * consists of 3 contigs. The true order of the pleces * is not known and their order in this sequence record is * arbitrary. Gaps between the contigs are represented as	* This record will be updated with the finished sequence * as soon as it is available and the accession number will * be preserved. * 85782 85806: gap of unknown length * 85782 65806: gap of unknown length * 102957 102981: contig of 17150 bp in length * 102957 102981: gap of unknown length * 102957 102981: gap of unknown length * 102957 105293: contig of 2042 bp in length. ES * 102982 105023: contig of 2042 bp in length. * 102983 105023: contig of 2042 bp in length. * (mol_type="genomic DNA") //mol_type="genomic DNA"	/isolate="GTTat10.1" //db.xref="kaxon:5691" //chromosome=u"" //clone="RPCI93-45E22" Query Match 92.1%; Score 1387.2; DB 2; Length 105023; Best Local Similarity 97.3%; Pred. No. 0; Matches 1470; Conservative 3; Mismatches 32; Indels 6; Gaps 6;
8 6 8 6 8 8	RESULT 4 AC116668 LOCUS DEFINITION ACCESSION VERSTON KEYWORDS SOURCE ORGANISM	AUTHORS AUTHORS TITLE JOURNAL REPERENCE AUTHORS TITLE	REFERENCE AUTHORS TITLE JOURNAL COMMENT	PEATURES	ORIGIN Query Best Match
241 ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC 298 [477 AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATCTTCGAGCCAGAC 536 [GCGAACAGAACCTCCCAAGGAAAGAATTGCAAGGAAATGAACTTTAGCTGTGAGGTATG TGGGCAACAGAACCTCCCAAGGAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG TGGGCAACACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC TGGGCAACACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAAAAATTTCACTTTAGAGTTCTTAAAAAA TTTCACTTACGGGTGTAAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA	TCACATGCGGACKCATAATGGCAAATCGGGGGCCAGAAGCAAGCGGGGAGGATGGA TCACATGCGGACACAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGGATGGA TCACATGCGGACACATAATGGCAAATGGGAAACTGCAGGAAGGA	1017 GCACCGCAAGGTGCACCAAAAAACTGCTTTCCGTACCAGCGCGCGC	1197 CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT 1256

 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6
 8
 6

S 8

8 6

8 & 8 &

6 B 6

g

8 8 8

중 읍

රි සි

8 & 8

8 6 8 6

8 6 8 6

8 8 8

6 B

ያ ያ

```
7966
                                                                                                                                                                                                  1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="97; 127; LBNL h117 and h79"
/note="isolated in Collins lab and sequenced by the Genome
Center at LBL"
                                                                                                                           1256
                                                                                                                                                                                                                                  8026
                                                                                                                                                                                                                                                                     1376
                                                                                                                                                                                                                                                                                                                                            1436
                                                                                                                                                                                                                                                                                                                                                                                8146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF312915 13-JUN-2001
Homo sapiens chromosome 20 clones 97 and 127, complete sequence.
AF312915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 121143)

Collins,C., Volik,S., Kowbel,D., Ginzinger,D., Ylstra,B., Cloutier,T., Hawkins,T., Predki,P., Martin,C., Wernick,M., Comprehensive genome sequence analysis of a breast cancer amplicon Genome Res. 11 (6), 1034-1042 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2340
                                                                                                                         1197 CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAAGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stultz, K.
AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                        GAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                      TGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAAAGAGAAGTGCAAACA
                                                                                                                                                                                                                                                                                                         8027 recadadadadadadadecagriciceagecricicecaagagadadagagagagagaaca
                                                                                                                                                                                                                                                                                                                                              CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCCAGTAGCAAGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                8087 CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(1. .66093)
//note="overlaps Homo sapiens chromosome 20 clone
RP5-823G15 deposited in GenBank Accession Number
AL354993.19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 (bases 1 to 121143)
Volik,S., Collins,C., Gray,J., Wernick,M., Kowbel,D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vol.,,,,,
Wartin,C.
Direct Submission
Submitted (10-OCT-2000) Cancer Genetics, UCSF Cance
Sutter St., Rm. S151, San Francisco, CA 94706, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .121143
/organism="Homo sapiens"
/or_Lype="genomic DNA"
/db_xref="taxon:9606"
/chromosome="10"
/map="20q13.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194. .468
/rpt_family="Alu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:11094030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8207 CTCCAGGGTCC 8217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF312915.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21275464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11381030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                       7847
                                                                                                                                                            7907
                                                                                                                                                                                                                                                                       1317
                    7787
                                                      1137
                                                                                                                                                                                                  1257
                                                                                                                                                                                                                                                                                                                                            1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
AF312915/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                    8 8 8
                                                                                                                                                   g
                                                                                                                                                                                                8
                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1666
                                                                                                          6827
                                                                                                                                                                                                                                                                                                                                                                                                7067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7187
                                                                                                                                                                                                                                   1188 AAAAATGTC-ATCCAAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC 7246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAGTCTAATTGA 1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1077 TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC 1136
                                                                                                                                                                                                                                                                                                          7367 GCGAACAGAACCTCCCAAGGAAAGAATTGCAAGGAAATGAATTTAGCTGTGAGGTATG 7426
                                                                                                                                                                                                                   240
                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                             358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   896
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAG 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           418 ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCCGAGAGCATCTCCTC 956
   61
                                                                                                                                                                                                                                                                                                                                                                                7008 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7307 TGAACCAGCACTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7487 TTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCTC
                        6708 CAGGTIGCIGGGATIGACTICTIGCICAATIGAAACACTCATICAATIGAAAGAGA
                                                                                                                                          TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7128 ATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7247 CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
   CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                       ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                      6768 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                               6828 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                 ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  477 AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                        241 ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                               CCAACGGAACTTTGAGATTATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                    6889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                            122
                                                                                                                                                                                                                 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 957
 N
                                                                       62
                                                                                                                                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            897
```

/rpt_family="Alu" /rpt_type=dispersed 20761071 /rpt_family="Alu" /rpt_family="Alu" /rpt_type=dispersed complement(2234422638) /rpt_fype=dispersed /rpt_type=dispersed 272622784 /rpt_type=dispersed /rpt_family="Alu" /rpt_type=dispersed /rpt_family="Alu" /rpt_type=dispersed /rpt_family="Alu" /	/rpt_tamily="Alu" /rpt_type=dispersed repeat_region complement (23.34923646) /rpt_family="Alu" /rpt_type=dispersed repeat_region complement (24.00824189) /rpt_family="MR" /rpt_family="MR"	region	repear_region complement(2)40: .25425) rpt_family="Alu"	/rpt_ramily="Mik" /rpt_type=dispersed repeat_region 26841. 27129 /rpt_family="Alu" /rpt_type=dispersed /rpt_family="11" /rpt_family="11" /rpt_family="11"	repeat_region 2851228730 / rpt_family="MBR25" / rpt_type=dispersed / rpt_type=dispersed / rpt_family="MLT2B2" / rpt_type=dispersed / rpt_type=dispersed / rpt_type=dispersed / rpt_family="MLT2B2"	/rpt_type=dispersed /rpt_type=dispersed 3534335522 /rpt_temily="Alu" /rpt_type=dispersed misc_feature	repeat_region /rpt type=dispersed /rpt type=dispersed /rpt family="Alu" /rpt_type=dispersed /rpt_typ
/rpt_type=dispersed repeat_region	repeat_region 18pt_type=dispersed repeat_region 18pt_instruct /rpt_family="Alu" /rpt_type=dispersed misc_feature 2485: 5521 /note="similar to Homo sapiens chromosome 5 clone crc_269F1 deposited in Genbank Accession Number	repeat_region 25942879 /rpt_family="Alu" /rpt_family="Alu" /rpt_type=dispersed misc_feature complement(28954437) /note="similar to flow-sorted chromosome 20 HindIII fragment, SC20pF17C6 deposited in GenBank Accession Number		repeat_region 44494764 /rpt_tamily="Alu" /rpt_type=dispersed repeat_region complement(56715987) /rpt_type=dispersed repeat_region 67237004 /rpt_family="Alu"	repeat_region complement(74867625) /rpt_type=dispersed /rpt_type=dispersed repeat_region 77167964 /rpt_type=dispersed /rpt_type=dispersed /rpt_type=dispersed /rpt_type=dispersed /rpt_fype=dispersed /rpt_fit=fit=fit=fit=fit=fit=fit=fit=fit=fit=		/evidence-not_experimental repeat_region 153011558 /rpt_family="Alu" /rpt_family="Alu" /rpt_tamily="Alu" /rpt_type=dispersed 1687317073 /note="similar to Homo sapiens STS WI-16697 deposited in GenBank Accession Number G21490.1" /rpt_family="Alu" /rpt_family="Alu" /rpt_type=dispersed /rpt_family="Alu" /rpt_family="Alu" /rpt_family="Alu" /rpt_family="Alu" /rpt_type=dispersed /rpt_type=dispersed /rpt_type=dispersed /rpt_type=dispersed /rpt_type=dispersed

104314

1076

1016

104194

g ò ద 8 ద ઠે 셤 ઠે g ò g ઠે a ઠે 셤 ò 셤 ઠે g ò g 8 පු ર્જ ద ઠે

1136

104074

1316

1256

```
1437 GCCCACTCACTGCTCCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA 1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAGAGAAGTGCAAACA 1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL157838 129871 bp DNA linear PRI 23-FEB-2001
Human DNA sequence from clone RP4-724E16 on chromosome
20413.12-13.32 Contains the ZNF217 gene for zinc finger protein
217, a novel gene, a putative novel gene, ESTB, GSSB, STSB and two
CpG islands, complete sequence.
AL157838
AL157838.24 GI:9588158
HTG; CpG island; zinc finger; ZNF217.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 128871)
                                                                                                                                                                                                                                                           104373 TCCTTACAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAGAAAGTCTAATTGA
                                                                                                                                                                                                                                                                                                                                     104253 TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (23-FEB-2001) Sanger Centre, Hinxton, Cambridgeshire,
CB10 15A, UK. E-mail enquiries: humquery@sanger.ac.uk Clone
requests: clonerequest@sanger.ac.uk
On Jul 31, 2000 this sequence version replaced gi:9408255.
                                                                                                                                                                            GAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                               TCACATGCGGACRCATAATGGCAAATCGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                       TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                     AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103833 CTCCAGGGTCC 103823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CICCAGGGICC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wilson, S.
                                                                                                              897
                                                                                                                                                                            957
                                                                                                                                                                                                                                         1017
                                                                                                                                                                                                                                                                                                        1077
                                                                                                                                                                                                                                                                                                                                                                     1137
                                                                                                                                                                                                                                                                                                                                                                                                                                  1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1377
                                               837
                                                                                                                                           104433
                  104553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
AL157838/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                            Š
                                                                        g
                                                                                                    ઠે
                                                                                                                                    셤
                                                                                                                                                                          8
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                       105332 CAGGTTGCTGGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA 105273
                                                                                                                                                                                                                                                                                                                                                                                                    105032 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC 104973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104554
                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                    62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGTGGAAAGAACCAGTGACCATCACTGAGCTTTCCTAAAAGTTTCGAAGATTAGAGG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA 836
                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105212 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              182 ACTATACACTITICITITIGAACTITITATAATAATATITIGCTCTGG-TITITGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCACACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCACACACTTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGGCTACCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104733 TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCGGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGAACAGAACCTCCCAAGGAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
                                                                                                                                                                                                                                                                                                                       CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGGCCAGAC
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                        Length 121143;
                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                       32; Indels
                                                                                                                                                                                                                                                      DB 9;
                                                                                                                                                                                                                                                    Score 1387.2;
Pred. No. 0;
3; Mismatches
                                                    /rpt_type=dispersed
complement(40100..40395)
/rpt_family="Alu"
/rpt_type=dispersed
40642..41118
                                                                                                                                       /rpt_family="MER1"
/rpt_type=dispersed
complement (41228. .41348)
/rpt_family="Alu"
/rpt_type=dispersed
41649. .41938
/rpt_family="Alu"
/rpt_type=dispersed
complement(39791. .40072)
/rpt_family="Alu"
                                                                                                                                                                                                                                                    Query Match 92.1%;
Best Local Similarity 97.3%;
Matches 1470; Conservative
                               repeat_region
                                                                                                                             repeat_region
                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                          repeat_region
                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104613
```

.297 of consensus" .305 of consensus"

.2745 of

consensus

ω

```
/note="Alusx repeat: matches 1. .300 of consensus" 121817. .12587 / Anote="Libba repeat: matches 5757. .6163 of consensus" 13133. .13637 / Anote="Militar repeat: matches 3. .338 of consensus" 4201. .14507 / Anote="Militar repeat: matches 1. .308 of consensus" / Anote="Alux repeat: matches 1. .308 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="12 repeat: matches 1697. .1824 of consensus"
5317. .15544
'note="L1MB3 repeat: matches 5943. .6173 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                     320. .7542
'note="MER58B repeat: matches 117. .341 of consenBus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="MLTIC repeat: matches 420. .463 of consensus"
17036. .17338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                606. .9733
note="MER33 repeat: matches 17. .148 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="AluJo repeat: matches 12. .299 of consensus"
5162. .15293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="L2 repeat: matches 2550. .2709 of consensus"
14764. .14868
                                                                                                                                                         /note="MERIA repeat: matches 1. .488 of consensus" 6164. .6225
                                                                                                                                                                                                                                                                                                                                                             658. .6967
note="Alusg repeat: matches 1, .309 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="MIR repeat: matches 103. .208 of consensus"
14891. .15152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="AluJo repeat: matches 1. .301 of consensus" 17339. .17730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="Alujb repeat: matches 1. .294 of consensus"
1262. -9561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16306. 16603
/note="AluSc repeat: matches 1. 306 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="AluSx repeat: matches 1. .293 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="MER5A repeat: matches 4. .183 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anote="MIR repeat: matches 63. .137 of consensus" 10781. .11083 /note="AluSx repeat: matches 1. .306 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="Alux repeat: matches 1. .308 of consensus" 14540. .14694
                                                                                                                                                                                                                                                                                       /note="AluSg/x repeat: matches 162. .296 of 6380. .6537
                                                                                                                                                                                                                                                                                                                                       note="79 copies 2 mer aa 60% conserved"
                                                                                                                                                                                                                                    note="31 copies 2 mer aa 71% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="19 copies 2 mer tt 81% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9262. .9561
/note="AluSq repeat: matches 1.
                                                                             note="AluSc repeat: matches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="L2 repeat: matches 2622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="AluSx repeat: matches 1.
                          note="AluSx repeat: matches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="AluSq repeat: matches 1.
:1878. .12182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note="AluSx repeat: matches 2.
                                                                                                                              note="L2 repeat: matches 2589.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement (10897. .11319)
/note="match: GSS: Em:AQ499673"
complement (10991. .11319)
/note="match: GSS: Em:AQ283579"
11462. .11759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="match: GSS: Em:AQ386102"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6989. .17035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6610. .16901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0128. .10437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .10108
                                                                                                        .5648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .9599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 9068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7545.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9606.
                                                                                                        5492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8465,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8523.
     repeat_region
                                                        repeat_region
                                                                                                           repeat_region
                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                              repeat_region
                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.
                                                                                                                                                   The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Bm:, BMBL; Sw:, SWISSPROT; Tr., TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found the primary accession that p://www.sanger.ac.uk/Projects/Celegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 20, constructed by the Sanger Centre Chromosome 20 Mapping Group. Further information can be found at hittp://www.sanger.ac.uk/HGP/Chr20

This sequence is the entire insert of clone RP4-724B16 The true
                                                                                                                                                                                                                                                                                                                                                                                                             right end of clone RPS-823G15 is at 19684 in this sequence. This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. RP4-724E16 is from the library RPCI-4 constructed by the group of Pieter de Jong. For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="L1MA4 repeat: matches 6017. .6162 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="L1MA4 repeat: matches 6162. .6293 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="AluSq/x repeat: matches 1. .134 of consensus" 4249. .4274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="MLT2A repeat: matches 362. .415 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="AluSq repeat: matches 126. .312 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rnote="FLAM C repeat: matches 1. .133 of consensus"
complement (1396. .1840)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="MER5A repeat: matches 61. .183 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .146 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="AluJo repeat: matches 14. .288 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5. .368
note="AluSx repeat: matches 1. .312 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="AluJo repeat: matches 1. .290 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="MER5A repeat: matches 4. .189 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="MER5A repeat: matches 10. .75 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note≕"MER5A repeat: matches 6. .101 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            744. 1902
note="MIR repeat: matches 14. 175 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'note="13 copies 2 mer gt 96% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          matches 14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="match: GSS: Em:AQ261624"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="match: GSS: Em:AQ673688"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  further details see
http://www.chori.org/bacpac/home.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="genomic_DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="MER5B repeat:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    map="q13.12-13.32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="RP4-724816"
clone_lib="RPCI-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chromosome="20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .3307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .3697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .128871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VECTOR: pCYPAC2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
```

.2747 of consensus"

.312 of consensus"

.306 of consensus"

.299 of consensus"

.301 of consensus"

.292 of consensus"

	70564 1077 70504 1137 70444 1197 70324 1317 70264 1317 70264 1317 70264 1437 70204 1437
6	P S C C C C C C C C C C C C C C C C C C
	Similarity 97.3%; SCCF 180.0; 0; Conservative 3; Mismatches CAGCTGCTGGATTGACTTCTTGCTCAATTGAAA CAGCTTGCTGGATTGATTCTTCTTGCTCAATTGAAATGATTGAATTATT

6 8 6 8 6 8 6 8 6 8 6 8 6 8 6

```
289
                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       947
                                                                                                                                112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1001
                                                                 52
                                                                                                                                                                                               172
                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                              349
                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                             유
                                                                                                                              ò
                                                                                                                                                           셤
                                                                                                                                                                                             8
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                       / LEARS LACE OF "MOSKYTCHMPTQSLLMYMDGPEVIGSSLGSPMEMEDALSMKGTA
/ VPPRATORINY 10 IEGYMPLDCMFCSQTFTHSEDLMHYLMOHRPTLCEPAULR VEA
EYLS PLUNGSVATEP PREKNCKENEFS ECEVCGGTFRVAFDVEI HMRTHKDS FTYGCMM
CGRR PKEPNIEDS I LEHRKWHTKKTAFGTSSBATINEVVQVHAABSI SSPYKIC
WVGFLFPPKEDS I LEHRKWHTKKTAFGTSSAQTDSPGGGMESREDELDIENIAPKSH
PETGKKPVRCI PQLDPFTTFQAMQLATVGKVAI CQEVKESGGEGSTDNDDSSSFKELG
EYNKGSCAGLSQBKKRCKHSHGAAPVDADPKLPSSKKKPTHGSCGFRAFRTYHQLVL
HSRVHKKDRRAGAESFTWSVDGRQPGTCSPDLAAPLDENGAVDRGEGGSEDDGEDGE
EGIHLDKNDDGGKIKHLTSSREGSYGGKFFRSNYYLMIHLRTHTGEKPYKCFFCEYAA
AQKTSLRYHLBRHHKEKQTVTAGSVTGKFFRSNYYLMIHLRTHTGEKPYKCFFCEYAA
AQKTSLRYHLBRHHKEKQTVTAGSVTGKFFRSNYYLMIHLRTHTGEFFYPDCAKU
UTGSPPAKQLIKEMESVFQNYLGSAULSPANGGTTHNLEVSPKEKQTETAADCRYREPUCH
HEKPLMLSVGALHNOPA ISLEKSLI PSI TCPFCTFKTFYPEBLEMMYRPTPAYLD
LLKKRSAUETQANNI LCRTKADVTPPPDGGTTHNLEVSPKEKQTETAADCRYREPUCH
HEKPLMLSVGALHNOPA ISLEKSLI PSI TCPFCTFKTFYPEBLEMMYRPTPAYLD
KNCRNKSLLRSRFTGCPPALLGKNVPPDLSSFCKKGFFPROSTENDYH
                           Collins, C., Rommens, J.M., Kowbel, D., Godfrey, T., Tanner, M., Collins, C., Rommens, J.M., Kowbel, D., Godfrey, T., Tanner, M., Havang, S.-I., Polikoff, D., Nonet, G., Cochran, J., Myambo, K., Jay, K.B., Froula, J., Cloutier, T., Kuo, W.-L., Yaswen, P., Dairkee, S., Giovanola, J., Hutchinson, G.B., Isola, J., Kallioniemi, O.-P., Li, W.-B. and Gray, J.W.

Direct Submission

Submitted (Or-JAN-1998) Life Sciences, Lawrence Berkeley National Laboratory, 1 Cyclotron Road, Berkeley, CA 94720, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PGKAPLTSGIDSSTLAPSNLKSHRPQQNVGVQGAATRQQQSBNFPKTSVSPAPDKTKR
PETKLKPLPVAPSQPTLGSSNINGSIDYPAKNDSPWAPPGRDYFCNRSASNTAAEFGE
PLEKLEKSSVALDVDQPGANYRRGYDLPKYHWYRGITSLLPQDCVYPSQALPPKRRF
LSSSBVDSPWLTVQFYGGSGPLYTCVPAGSPASSSTLEGKRPVSYQHLSNSMAQKR
NYENFIGNAHYRPNDKKT"
                                                                                                                                                                                                                                                                                                                                                                                                           /product="breast cancer putative transcription factor"
/protein_id="AAC39895.1"
                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     923. .985
/gene="ZABC1"
1400. .1463
/gene="ZABC1"
/note="ZABC1"
/note="ZABC1"
/gene="ZABC1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="zinc finger 7"
2405. .2470
/gene="ZABC1"
/note="zinc finger 8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        470. .535
/gene="ZABC1"
/note="zinc finger 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      659. .721
/gene="ZABC1"
/note="zinc finger 2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="zinc finger 6"
                                                                                                                                                                                                                                                                                                                                                                                                                                          xref="GI:3335397"
                                                                                                                                                                                                                                                                                                                                                                           /note="Kruppel-like"
                                                                                                                                                                                                                                                                                             /map="20q13.2-q13.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       744. .805
/gene="ZABC1"
/note="zinc finger
                                                                                                                                                                                                                                                                                                                                                                                              codon_start=1
                                                                                                                                                                                                                                                                                                                                         272. .3418
/gene="ZABC1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1772. .1834
/gene="ZABC1"
                                                                                                                                                                                                                                                                                                                              gene="ZABC1"
                                                                                                                                                                                                              .5632
                                                                                                                                                                                                                                                                                                              .5632
                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                source
MEDLINE
PUBMED
                                REFERENCE
AUTHORS
                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                               FEATURES
```

```
1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCATCTCCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAATAAGAAA 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ġ
                                                                                                                                                                                              61 TATGCCTTGTTTGTGGAAAGAACCAGGACACCATCACTGAGGTTCCTAAAAGTTCGAAG 120
                                                                                                                                                                                                                                                          230
                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                               288
                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           959
                                                                                      111
                                                                                                                                                                      171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                            9
                                                                                                            TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                                                                                                                                              GGAACCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                         GGAACCCAGGGCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAATTGCCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 CAGAAATTGCCCAACGGAACTTTGAGATTATACAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTTAAAAATCACATGCGGACRCATAATGGCAAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840 AAGCTTGGAGAGAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCATCTCCTCTTCCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                          AAGTTAGAGGACTATACACTTTTTGAACTTTTATAATAATAATTGGG-TTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540 CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600 AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gretaatteageacegeaaggrecacacacaaaaaaacrecriteggraceagegege
                                                                                      GACAAAGAGCACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCTTAAAAATCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTAATTGAGCACCGCAAGGTGCACCACAAAAAACTGCTTTCGGTACCAGCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         467 ACACAAAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 TACACAAGAAAAATGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>AAAGTCCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT</u>
                                            Gaps
                                            . 9
      Length 5632
                                            Indels
      6
                                            32;
      DB
Query Match

88.7%; Score 1337.2;
Best Local Similarity 97.2%; Pred. No. 0;
Matches 1420; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

231 GGAACCCAGGACTGTTAGA-GGGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC 288 [GTGAGGTATGTGGGCAGACATTACAGGTCGCTTTTGATGTTGAGATCCACATGAGAACAC GTGAGGTATGTGGGCAGACATTTACAGGTCGCTTTTGATGTTGAGATCCACATGAGAACAC ACAAAGATTCTTTCACTTACGGGTCTAACATGTGCGGAAGAGATTCAAGGAGCCTTGGT ACAAAGATTCTTTCACTTACGGGTCTAACATGGCGGAAGAGAATTCAAGGAGCCTTGGT TTCTTAAAAATCACTACGGGACCATAATGGCAAATCGGGGGCCAGAAGATTCAAGGAGCCTTGGT TTCTTAAAAATCATCACTGCGGACCAATATGGCAAATCGGGGGCCAGAAGATTCAAGGACCTTGGT TTCTTAAAAATCACTCACTGCGGACCAATATGGCAAATCGGGGGCCAGAAGATTCAAGGACCTTGCAGTGCGGACAATCGGGGGCCAGAAGATTCAAAAATCCACTAAATGGCAATCGGGGGCCAGAAGATTCCAGGAAAATCTCAAATAGCCAAATCGGGGGCCAGAGGTCCAGGGGCCAGAAGAATCCCTTCAAATGGCAAAATCTGCAAATAGGCAAAATCTGCAAAAAAAA
8 4 8 4 8 4 8 8 8 8 8 8 8 8 8 8	8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 8 4 8 8 4 8
	REGULT 9 CQ726295 CQ726296 CQ726767767676767676767676767676767676767

558 TAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGT 61.	OD 240 TAATAAACATGTCTTAATGCAACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGT 259 QY 618 TGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGG 677	500 JGANGCRANGSTATCICAGICCOCTICATANANGSICANGIGCGNACAGNACACTCICCCCAGGGA 678 AAAGAATTGCAAGAAAATGAATTTAGCTGTGAGGTATGTGGGGCAGACATTTAGAGTCGC [380 AAAGAATIGCAAGGAAAAATGAATITAGCIGTGAAGGTATGIGGGGGAACATTTAGAGTCGC 41 738 TTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTCACTTACGGGGTGTAACAT 79 420 TTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACAT 47	Qy 798 GTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAATGG 857 Db 480 GTGCGGAAGAAGAATCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACACATAATGG 539	Qy 858 CADATCGGGGCCAGAAGCAAACTGCAGGAAGGCTTGGAGAGTAGTCCAGCAACGATCAA 917 D 540 CADATCGGGGGCCAGAAGCAAACTGCAGGAAGGCTTGGAGGATAGTCCAGCAACGATCAA 599	QY 918 CGAGGTCGTCCAGGCGCGGAGGAGCATCTCCTTCCTTGCAAAATCTGGATGGT 977 b CGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTTTCCTTTACAAAATCTGCATGGT 659	OY 978 TIGIGGCTICCIATITCCAAATAAAGAAAGTCTAAITGAGCACCGCAAGGTGCACCCAA 1037	Qy 1038 AAAAACTGCTTTCGGTACCGCGCGCAGACGGGACTCTCCACAAGGAGGATGCCGTC 1097 Db 720 AAAAACTGCTTTCGGTACCAGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTC 779	Oy 1098 CTCGAGGAAGACTTCCTGCAGTTGTTCAAACTTGAACCAAAATCTCACCCTGAAACGGG 1157	Oy 1158 GAAGAGCTGTCAGATCCTCAGGTCGATCCATCACCACCTTCAGGGTTGGCA 1217	Oy 1218 KCTGGCTACCAAAGAAWAGTTGCCATTGCCAAGAAGTGAAGGAATTGGGGCAAGAAGG 1277	Oy 1278 GAGCACCGACAACGATTCGAGTTCCGAGAGGAGCTTGGAGAAACAAAAACA 1337	Oy 1338 TTGFGCAGGCCTCTCGCAAGAGAAAGAGAAGAGCAAACACTCCCACGGCGAAGCGCCTC 1397 Db 1020 TTGFGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTC 1079	OY 1398 CGTGGACGCGATCCCAGTAGCAAGAAGAAAGCCCACTCACT	Qy 1458 CGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507 Db 1140 CGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1189	RESULT 11 AC118373 AC	***, 6 unordered pleces. AC118373 GT:23194641
	OY 1367 AGTGCAAACACTCCCAGGGGAAGCGCCCTCGTGGACGGGGATCCCAAGTTACCCAGTA 1426	OY 1427 GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC 1486	Qy 1487 TGGTCTTGCACTCCCAGGTCC 1507 Db 1440 TGGTCTTGCACTCCAGGGTCC 1460		1710N Genes from the 20q13 amplicon and SION BD085734.1 GI:22631344 ON JD 2001524802-A/10.	tificial sequences.	Rommens, Gorges, Gorges, Gorges, Gorges, Gorges, Gorges, Genes from the 20q13 amplicon and their uses Patent: JP 2001524802-A 10 04-DEC-2001;	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA COMMENT OS Artificial Sequence PN JP 2001524802-A/10 PD 04-DEC-2001	PR 15-JUL-1994 US 08/680395,16-OCT-1996 US 08/731499 PR 15-JUL-1997 US 08/78532 PI JOB W GRAY,COLIN CONRAD COLLINS,SOO IN HWANG,TONY GODFREY, PI	DATUS NOMENS PC C12N15/11,C12Q1/68,A61K48/00 CC Description of Artificial Sequence:ZABC1 Open Reading Frame FH	II.	BOURCE 1. 3189 /organism="synthetic construct" /mol_type="genomic DNA" /db_xref="taxon:32630"	Oricin Query Match A3.6%; Score 1108.6; DB 6; Length 3186; Best Local Similarity 97.1%; Pred. NO. 0; Matches 1156; Conservative 3; Mismatches 28; Indels 3; Gabs 3;	320 ATGCAATCGAAAGTGACAGGAAACATCCCACTCAATCTTAATGTACATGGAT-GG 37 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	379 CCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAGATGGA-GATGCCTTGTCAATG	OY 438 AAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAAATGTCAATCCGAATCGA 497 	OY 498 GGGGAATATGCCCTTGGATTGCATGTTCTGCAGACCTTCACACATTCAGAAGACCT 557

SOURCE

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                     Milan, C., Allen, H., Albabooke, S., Amin, A., Agguiano, D.,
Allen, C., Allen, H., Albabooke, S., Amin, A., Agguiano, D.,
Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H.,
Baldarin, D., Bandaranake, D., Babbooke, S., Banteeda, Benahmed, F.,
Biswalo, K., Blair, C., Burch, P., Burch, B., Brown, M.,
Biswalo, K., Blair, C., Burch, P., Burch, Center, A.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Cardenas, V., Denson, S., Dermon, C., Ding, Y., Duval, B., Baves, K.,
Bayala, M., Bector, D., Chen, C., Ding, Y., Dinh, H., Divya, K.,
Daglado, O., Denson, S., Dumn, A., Durbin, K., Duval, B., Baves, K.,
Fernandez, S., Finlay, M., Fallagy, N., Fallar, T., Fand, G.,
Franstre, P., Haland, M., Mand, R., Garner, T., Garza, M.,
Gebregeorgis, E., Geer, K., Gilli, C., Hamilton, C., Hamilton, K.,
Havay, Y., Havalak, P., Hawes, A., Hamilton, C., Hamilton, K.,
Havay, Y., Havalak, P., Hawes, A., Handerson, M., Hennandez, J.,
Gunaratte, P., Haland, M., Hamilton, C., Hamilton, K.,
Jackson, L., Jacog, H., Wally, S., Khan, Z., More, S.,
Mandan, E., Loulseged, H., Lordon, B., Johnson, R., Volivet, A.,
Jackson, L., Jacog, H., Wally, S., Khan, Z., More, S.,
Martin, K., Matin, K., Martin, K., Martin, K.,
Mandym, B., Mayu, P., Martin, K., Martin, K., Martin, K.,
Mandym, S., McLeod, M. P., Morris, S.,
Morgan, H., Morris, S., Mundea, M., Marphy, M., Nair, L.,
Pazo, M., Morris, S., Wanger, R., Reele, R., Respin, R.,
Besternak, S., Pallay, A., Sisson, I., Sitter, C. D., Sand, S., Bhan, H.,
Shetty, M., Severy, G., Sadergen, R., Song, K., Regter, M., Redger, R., Bang, P.,
Shetty, M., Severy, G., Sherer, S., Sochere, S., Song, Y., Sherigh, R., Wallas, R., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (19-SEP-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Sep 19, 2002 this sequence version replaced gi:21745781. The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequential reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). As a result, the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (17-APR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                         Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rat Genome Sequencing Consortium.
Direct Submission
Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 184420)
                                                                                                                                                               (bases 1 to 184420)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 184420)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Worley, K.C.
Direct Submission
                                 Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
```

TITLE

COMMENT

```
1393398 TTTGTGCAAAGACCCA---CCTCTATCACTGAGCTTCCCCCAAGCTC-----TG 139443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139444 GAATATACACATCCCTCTGAACTT-----AGAGTTGCTCTAATTTTGACGCCCAGG 139494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139278 cacarridecededareaacererreereaacridaeceaereaecedagaeagaredaeaaa 139337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                139338 ACTGTTGCCCTCATGCTGACTCACGTCTGAATCACAGCCCAGGGCAGCCTGGATGCCTTG 139397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 ACTAATGCTTTG-TGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 ITTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 ACTGTTAGAGGGGGAGTGACAGGTCTTAC---AGTGGCCTTAATCCAACTCCAGAAATTG 297
sequence may extend beyond the ends of the clone and there may be contigs that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quality coverage: 4x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 GACTATACACTITICTATICAACTITIAAAAATATITGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             * NOTE: Estimated insert size may differ from sequence length
                                                                                                                                                                                                                                                                                                                arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40.8%; Score 614.2; DB 2; Length 184420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20298: contig of 20298 bp in length 20398: gap of unknown length 165002: contig of 144604 bp in length 165102: gap of unknown length 167013: gap of unknown length 167013: gap of unknown length 169569: contig of 2456 bp in length 171214: contig of 1645 bp in length 171214: contig of 1645 bp in length 171314: gap of unknown length 171314:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches 397; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 184420: contig of 13106 bp in length.
Location/Qualifiers
                                                                                                                                                                                                       Web site: http://www.hgsc.bcm.tmc.edu/
                                                                                                                    Center: Baylor College of Medicine
Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .184420
/organism="Rattus norvegicus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 4e-177
                                                                                                                                                                                                                               Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DNA"
/db xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="CH230-356E19"
                                                                                                                                                                                                                                                                                        Center project name: GTWO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .1115
/note="wgs_contig"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 1079; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     169570
171215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            167014
169470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
```

Oy 1324ACAAATAAGAACCATTGTGC Db 140631 CAAGACAAATAGAAGCAGTTGTTC OY 1380 CCACGGCGAAGCGCCTCCGTGGA Db 140691 TAACAGTGAAGTGCCTTCAGGGGA OY 1400 CACTCACTGCTCCGAGTGCGCAA OY 140751 CACACACTGTTCGGAGTGCAGTAA Db 140751 CACACACTGTTCGGAGTGCAGTAA Db 140811 GAGGGTCC 1507 Db 140811 GAGGGTCC 140818	RESULT 12 AC099079 LOCUS AC099079 LOCUS DEFINITION Rattus norvegicus clone CH 6 unordered pieces. ACCESSION AC099079 VERSION AC099079.5 GI:30521728 KEYWORDS RATTUS PHASE1; HTGS DRA SOURCE SOURCE RATTUS NORTES CHORDA MARMANIA; METACOS (CHORDA MARMANIA); EUTHERIA; ROGENT RATTUS. REFERENCE I (bases I to 246332) AUTHORS MIZIN, D. MARIE, , METACE, M. ALJBDO ANYALEBECHI, V., ADVAGI, A., BAIDATO ANYALEBECHI, V., ADVAGI, A.,	Biswalo, K., Blair, J., Blan Bryant, N., Buhay, C., Burch Cardenas, V., Carter, K., Burch Chacko, J., Chavez, D., Chen Cleveland, C., Cockrell, R., Davila, M.L., Davis, C., Dav Draper, H., Dugan-Rocha, S., Egan, A., Escotto, M., Eugen Fernandez, S., Finley, M., F Fraser, C.M., Gablei, A., Gebregeorgie, E., Geer, K., Gebregeorgie, E., Geer, K., Gebregeorgie, E., Geer, K., Harvey, Y., Havlak, P., Hawe Harvey, Y., Havlak, P., Hawe	Hollins, B., Howells, S., Hu Jackson, L., Jacob, L., Jacob, Karpathy, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Liu, W., Liu, Y., Loulseged, Maheshwari, M., Mahindarne Mangum, B., Mapua, P., Marti Manjum, B., Mapua, P., Marti Manhiney, S., McLeod, M.P., Milosavljevic, A., Miner, G., Mankervis, C., Meal, D., New Nankervis, C., Neal, D., New Nankervis, C., Neal, D., New Nankervis, C., Neal, D., New Nankervis, C., Neal, D., New Nankervis, P., Polindekrer, A., Puazo, M., Quircoz, J., Rachl Reilly, B., Reilly, M., Ren, Rives, C., Rodkey, T., Rojas Sanders, W., Savery, G., Sch Shetty, J., Shvartsbeyn, A., Sneed, A., Sodergren, E., Su Steimle, M., Strong, R., Sut
139495 GCTTCTGGAGGTTTGAGTGATATCTCACAAGTGTCCTTATTCTAACTCCAGAGATCC 139554 298 CCCAACGGAACTTTGAGATTATGCAATCGAAGTGACAGGAAACATGCCAACT	531 CCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTAC	140034 TAAGGACTCCTTCACGTATGGGTGCAGCAGGAGGAGGATTCAAGGAGCCGTGGTT 140093 828 TCTTAAAAATCACATGCGGACKCATAATGGCAAATCGGGGGCCAGAAGCAGCAGCAGGAGCAGCAGAGCAGCAGAGCAGC	
8 6 8 6 8 6 8 8	3 B 3 B 3 B 3	3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 6 8 6 8 6 8 6 8 8 8 8 8 8 8 8 8 8 8 8

1324 ----ACAMANGARCANTETTCAGGGTCTCCAGGAGAGAGAGAGAGATCT [1379]
140631 CAGGAGAAANGAGACATTGTTCAGGTTCTCCAGGACAAAAATAATAATTAGAATTAGAATTGAGAATGTGAGAATTGAGAAT

```
298 CCCAACGGAACTTTGAGATTATATGCA----ATCGAAAGTGACAGGAAACATGCCAACT 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITGIGGAAAGAACCAGIGACACCAICACIGAGCITCCIAAAAGITCGAAGAAGTIAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50861 ATGGAGGTGGATGATGCTGTGCCCATGAAGGGACCGGCTGTGGTCCCCTTC-CGAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50920 GCAGGAGAAGAGCTTGGCCACAGCTGAGGGACACATGCCCCTGGACTGCATGTTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51040 cercricricadecedecrerecereceresedadecedadrarrandececeredadade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 CAGGITGCIGGGATIGACTICTIGCICAATIGAAACACICATICAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50464 cacarricceggarcaacgrerriccreaacgreaccacreaccegregagargacaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 ACTAATGCTTTG-TGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50524 ACTGTTGCCCTCATGCTGACTCACGTCTGAATCACAGCCCAGGCAGCCTGGATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50584 Trigigcaaagaccca---ccrcrarcacigagcricccccaagcric-----rg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50630 GAATATACACATCCCTCTGAACTT-----AGAGTTGCTCTAATTTTGACGCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 ACTGTTAGAGGGTGAGTGACAGGTCTTAC---AGTGGCCTTAATCCAACTCCAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50741 TTAGCAGACAGCTGGATCGTCCATCCACTCAGACCTGAAGTGGCCGGCAGCATGCCGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAATCCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTTGCCAGTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          471 AAAGAAAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50980 CCAGGTCTTCTCTCACGCGGAAGATCTCAATCAGCATGTGCTCCTGCAGCACCGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAA---ATGAATTTAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51100 TCAGGTGCCCACGGAACCACAAGGAGAGAGCAGCAGAAGAATGGAAGAGCTGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51160 reargrangecesacacatreceaereserrinearerreaeseceaereaaaea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51220 TAAGGACTCCTTCACGTATGGCTGCAGCATGTGCGGGAGGAGATTCAAGGAGCCGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTATACACTTTTTGAACTTTTATAATATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            412 ATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGACCTTCACACTTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               768 CAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                  40.8%; Score 614.2; DB 2;
68.8%; Pred. No. 4.2e-177;
ive 3; Mismatches 397;
                            /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
                                                                                                                                 / . . 4672
/note="wgs contig"
/13691. . 139129
/note="wgs contig"
/174114. . 175268
/note="wgs_contig"
                                                                                                                /clone="CH230-99J9
                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 68.6
Matches 1079; Conservative
                                                                                                                                          misc_feature
                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             651
                                                                                                                                                                                                                                                                                                                                                                     Query Match
        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (10-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houseron, TX 77030, USA.

Baylor Plaza, Houseron, TX 77030, USA.

The sequence in this sequence version replaced gi:23269227.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.ed/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a "working draft' sequence It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                            Submitted (09-NOV-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 246332)
Rat Genome Sequencing Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature
Taylor, T., Thomas, N., Thomas, S., Tingey, A., Trejos, Z., Usmani, K., Valas, R., Vera, V., Villasana, D., Waldron, L., Walker, B., Wang, J., Warren, T., Wait, X., White, F., Williams, G., Willson, K., Wleczyk, R., Wooden, H., Worley, K., Wright, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, V., Yu, F., Zhang, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Assembly program: Atlas 3.0;
Consensus quality: 200040 bases at least Q40
Consensus quality: 213312 bases at least Q30
Consensus quality: 215334 bases at least Q30
Estimated insert size: 219845; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14481: contig of 14481 bp in length
14581: gap of unknown length
41011: contig of 26430 bp in length
41111: gap of unknown length
239819: contig of 198708 bp in length
239919: gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 241122: Contig of 1203 bp in length
23 241222: gap of unknown length
23 242316: contig of 1094 bp in length
17 242416: gap of unknown length
17 246332: contig of 3916 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center clone name: CH230-99J9
                                                                                                                                                                                                                                                                                 (bases 1 to 246332)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239920
241123
241223
242317
242417
                                                                                                                                                                                                                                                                                                           Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       table.
                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                 RFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
```

50800

50919

470

50979

530

51039

50680

297

240

50629

180

50583

120

14;

Gaps

89;

Indels

Length 246332;

51219

167

51279

51099

ద

8 8

ð ò 셤 ð 유 ઠે a ð 셤 8 셤 ò g ઠે 셤 ò g ઠે g ò 원

```
Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation and these are annotated as variations together with a note of the overlapping clone, as we submit sequences submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence submission and required as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Em:, EMBL; Sw., SWISSPROT; Tr., TREMBL; Wp.; WORNPEP; Information on the WORNPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep RP23-233M15 is from the RPCI-23 Mouse BAC Library constructed by the group of Pieter de Jong.

Per further decails see http://www.chori.org/bacpac/home.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32206 CTGTTGCCCTCGTGCTGACGCACATCTGACTCACAGCCTGGGGCAGCTTGGATGCCTTGT 32147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31930 CAGTCCCTCGTCGTGTACATGGACGGGCCGGAAGTCCTCAGCAGCTCTCTAGGCTCCCAG 31871
                     from the whole genome shotgun alone has only been used where it has a phred quality of at least 30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32266 CACATTGCCGGGATCAACGTCTTGCTCAACTGAGCCACTCACCAGTGGAGATGGACAGAG 32207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32050 CTCTTAGAGGTTCTGAGTGGTGATATCTCACAGGCGGCCTTATTCTAACTGCAGAGATCC 31991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATATACTCGTCCCTCTGACCTT-----AGAGGTGCTCTGATTTTGACACCCAGGG 32051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31990 TCAGCAGATAGTGGATTACCCATCCTGTCAGACCCTGAAGTGGTTGGCAGCATGCCGACC 31931
   Sequence data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                                                                                                                                                                                                         compared from overlapping clones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 CAGGITGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTTAGAGGGTGAG---TGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAACGGAACTTTGAGATTATATGCAATCGA-----AAGTGACAGGAAACATGCCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAATCCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 114285;
   shotgun may have been used to confirm this sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38.1%; Score 573.6; DB 10; 65.6%; Pred. No. 1.3e-164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Mismatches 448;
                                                                                                               Center: Wellcome Trust Sanger Institute
                                                                                                                                                                     Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                         During sequence assembly data is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .114285
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic DNA"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="RP23-233M15"
/clone_lib="RPCI-23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VECTOR: pBACe3.6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 1028; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                            51517 CCCTGATGGCCACCACAGAGGAACCCACACATCCCCGGAGGAGAGAGCTGCTGCAGTTTTTGAA 51576
                                                                                                                                                      31340 GGGCACGAGA---AGTCCAGTCACCATCAACGATGTGGTCCAGGCACATGCCCCTGGGA 51396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51757 AGAGAAAGAGGAACTTGGAGAATATGGGTTGGGGTAAGGTGGAAGGTTCTGGAAAGTC 51816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51817 CAAGACAATAGAAGCAGTTGTTCAGGTCTCTCCCAAGACAAAAGATAAGTCTAGACATGG 51876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1187
                                                                                                                                                                                                                                                                                                                                        1008 TCTAATTGAGCACCGCAAGGTGCACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGCA 1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1188 CGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTG 1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAAGAA---GTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTC 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----ACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAGAGAAGAGTGCAAACACTC 1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTC 1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        114285 bp DNA linear ROD 22-JAN-2003 seguence from clone RP23-233M15 on chromosome 2, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (12-JAN-2003) Wellcome Trust Sanger Institute, Hinxton,
Cambridgeshire, CB10 1SA, UK. B-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
On Jan 22, 2003 this sequence version replaced gi:27820135.
Sequence from the Mouse Genome Sequencing Consortium whole genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
828 TCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCA
                                                                                                                                                                                                                                                                               51397 CATCTCCACTACAAGATCTGCATGGTCTGTGGCTTCCTCTTCCCAAATAAGCAGAG
                                                                                                            888 AGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCGAGAG
                              51577 CTTGAGACCCAGATCAACTGCAGAGTACAGTGAAGCCCATGACCTCTATACCTCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51877 TAACAGTGAAGTGCCTTCAGGGGACGCTGACTCCAAGTTGCCCGGCAGCAAGAAGAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGA---AGGAGCTTGGAGAA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL844576.9 GI:27848013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 114285)
Griffiths, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51997 GAĞĞĞİĞ 52004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL844576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL844576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1500
                                                                                                                                                                                                                              948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL844576/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
```

COMMENT

HTG 18-JUL-2000

```
Consensus quality: 197269 bases at least Q40
Consensus quality: 205411 bases at least Q30
Consensus quality: 205481 bases at least Q30
Consensus quality: 205881 bases at least Q30
Consensus quality: 205881 bases at least Q30
Consensus quality: 205881 bases at least Q30
Betimated insert size: 208279; sum-of-contigs estimation
Butimated insert size: 208279; sum-of-contigs estimation
Quality coverage: 7.17 in Q20 bases; pulse field gel estimation
Quality coverage: 7.17 in Q20 bases; sum-of-contigs
* NOTE: This is a 'working draft' sequence. It currently
* consists of 16 contigs. Gaps between the contigs
* are represented as runs of N. The contigs
* are represented as runs of N. The contigs
* is believed to be correct as given, however the sizes
* of the gaps between them are based on estimates that have
* provided by the submittor.
* This sequence will be replaced
* by the finished sequence as soon as it is available and
* the accession number will be preserved.
* This sequence will be replaced
* the accession number will be preserved.
* 6645 14779: contig of 6544 bp in length
* 6545 14779: contig of 1935 bp in length
* 16815 16914: gap of unknown length
* 16815 16914: gap of unknown length
* 16815 16914: gap of unknown length
* 16815 27057: gap of unknown length
* 26958 27057: gap of unknown length
* 27058 38715: contig of 10638 bp in length
* 27058 38715: contig of 1658 bp in length
* 27058 38715: contig of 16580 bp in length
* 27058 38715: contig of 20670 bm in length
                  1441 ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCAGCTGGTCTTGCACTCC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (16-FEB-2000) Production Sequencing Facility, DOB Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA On Jul 18, 2000 this sequence version replaced gi:8810276.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                               AC023610 208979 bp DNA linear HTG 18-JUL-20
Mus musculus clone CT7-510C4, WORKING DRAFT SEQUENCE, 16 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g of 24602 bp in length
f unknown length
g of 16401 bp in length
f unknown length
g of 59684 bp in length
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www.jgi.doe.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center Project Name: 1149073
Center clone name: RG-MBAC_510C4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------Genome Center
Center: Joint Genome Institute
Center Code: JGI
                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
1 (bases 1 to 208979)
                                                                                                                                                                                                                                                                                                                                       AC023610.3 GI:9256438
HTG; HTGS PHASE2; HTGS DRAFT.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63517: contig c
63517: gap of u
79918: contig c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
gap of t
contig
gap of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 208979)
DOE Joint Genome Institute.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOE Joint Genome Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139702:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing of Mouse
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Summary Statistics
                                                                                                                                  30733 AĠĠĠTĠĊ 30727
                                                                                       1501 AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38816
63418
63518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79919
80019
139703
                                                                                                                                                                                                                                                                                                                      AC023610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Project
                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
JOURNAL
AUTHORS
                                                                                                                                                                                                    RESULT 14
AC023610
                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                             셤
                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31690 CTCTGCGAGCCAGCTGCCTGTGAGAGGCCGAGTACCTAAGTCCCCTTGATAAAGCT 31631
                                                                                                                                                                                                                                                                                                                                                                                                                               31630 crecaccalcadeceacerrecadadedeceacadesececeaceaceacrecier 31571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31390 GGCATGGAG---AGTCCAGTCACCATCAATGAAGTGGTCCAGCCGCACGCCCCTGGGAGC 31334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3133 ATCTCCACGCCCTACAAGATCTGCATGGTCTGCGGCTTCCTCTTCCCAAATAAGCAGAGC 31274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCCGTTCACCACCTACCAGGCATGGCAGTTGGCTACCAAAGGAAAAGTGGCCGTTGCC 31034
                                                                31870 ATGGAGGTGGATGATGCTGTGCCCATAAAAGGGCCGGTGGCAGTCCCCTTCCGAGCTGCT 31811
                                                                                                                                                                                                                                                 31750 CAGGTCTTCTCTCAGGCGGAGGATCTCAGTCAGCACGTGCTGCTGCAGCACCGGCCCACC 31691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31033 CAGGAAGAGGTGAAAGAGTCAGGCCAAGAAGGAAGCACAGAAGAAGAAGACAATGACGACTCATGCTCA 30974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30973 GAGAAAGAGGAACTAGGGGAAATATGGGTTGGGGTAAAGGCGGAAGGGTCTGGAAAGTCC 30914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTC 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - AAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCTTTCCTATTTCCAAATAAAGAAGT 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTAATTGAGCACCGCAAGGTGCACCCAAAAAAACTGCTTTCGGTACCAGCAGCGCGCGG 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1189 GATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGC 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C---AAGAAGTGAAGGAATTGGGGCAAGAAGAGGACCACCGACAACGACGATTCGAGTTCC 1305
                                                                                                                                                                                                                                                                                               651
                                                                                                                                                                                                                                                                                                                                                                                      708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACAC 768
                     ATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACACA 471
                                                                                                                                                          31810 CAGGAGAAGAGCATGGCCGTGGCAGAGGGCCACATGCCCTGGATTGCATGTTCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        769 AAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGCAAACTGCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31213 CCTGATGACCACCGAGAGGGAACCCACGTCCCCGAGGGAAGAGTTGCTGCAGTTTTTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30913 AAAACAAGTAAAAGCAGTTGTCCAGGTCTCTCCCAAGACAAAAGAGAAGCCTAGACATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCCC
                                                                                                                                                                                                    CAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACC
                                                                                                                                                                                                                                                                                               CTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCTCAGTCCGCTTGATAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31153 TTGAGACCCAGATCAACTGCAGGTAGTACAGTGAAGCCCCATGACCTGCATACCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                      CAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAATTTAGCTGT
                                                                                          aagaaaaaaaagaggaaatagccaaatccaaatcaagggaaatatgcccttggattgcatgttt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAGGAGCTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31273
                                                                                                                                                                                                    532
                                                                                                                                                                                                                                                                                               592
                                                                                                                                                                                                                                                                                                                                                                                      652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                   요
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                      g
                                                                                              ò
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
```

```
95098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94861
                                                                                                                                                                                                                                                                                                     94981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAAAGAGGAACTAGGGGAAATATGGGTTTGGGGGTAAGGCGGAAGGGTCTGGAAAGTCC 95518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95519 AAAACAAGTAAAAAGCAGTTGTCCCAGGTCTCTCCCAAGACAAAGAAGAAGCCTAGACATGCT 95578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95579 AATAGTGAAGTGCCTTCTGGGGATAGTGACCCCAAGTTGTCCAGTAGCAAGGAGAAGCCC 95638
                                                                                                                                                                                                                                                                                                                                                                                                                                 95041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xenopus laevis mitotic phosphoprotein 140, mRNA (cDNA clone MGC:80369 IMAGE:5074630), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGC 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C---AAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCC 1305
                                                                                                                                                                                                                                                                                                                                                                       888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   948
                                                                                                                     768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIGAGACCCAGATCAACTGCAGGTAGTACAGTGAAGCCCCATGACCTGCATACCTCAGCTT
                      CTGGAGCCAACAGAGCCAGCATTGGAGAAGAGTGGCGAAGAGACCCCGAGGAGTTGAGCTGT
                                                                                                                                                                                                                                                                                  TTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - AAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAAGAGAAGTGCAAACACTCC
                                                                                                                                                         GATGTGTGTGGGCAGACATTCCCAGTGGCTTTTGATGTTGAGAGCCACATGAAGAAGCAT
                                                                                                                                                                                                                                                                                                                                                                       CTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGCTGCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGGGGCCGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATGGAG----AGTCCAGTCACCATCAATGAAGTGGTCCAGCCGCACGCCCCTGGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCC
                                                                                                                                                                                                                                              AAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCCAAGTTACCCAGTAGCAAGGAGAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC072191
BC072191.1 GI:47940271
MGC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAGGAGCTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGTGC 95705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGGTCC 1507
                                                                                                                                                                                                                                              769
                                                                                                                                                                                                                                                                                                                                                                       829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1501
                                                       94802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                     709
                                                                                                                                                                                94862
                                                                                                                                                                                                                                                                                                     94922
                                                                                                                                                                                                                                                                                                                                                                                                                                     94982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BC072191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
                                                                                                                  8 6
                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cacarrecededarcaacererrecreaacreaeceaereaeredagareaeaeaeae 94225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGTCCCTCCTCGTGTACATGGACGGCCGGAAGTCCTCAGCAGCTCTTAGGCTCCCAG 94561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATATACTCGTCCCTCTGACCTT----AGAGGTGCTCTGATTTTGACACCCAGGG 94381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94442 TCAGCAGATAGTGGATTACCCATCCTGTCAGACCCTGAAGTGGTTGGCAGCATGCCGACC 94501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94226 CTGTTGCCCTCGTGCTGACGCACATCTGACTCACACGCCTGGGGCAGCTTGGATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGAGAAAGAGCATGGCCGTGGCAAGAGCCCCACATGTTGCATGTTCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Trigraca a de de contra de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTATACACTTTCTTTTGAACTTTTATAATATTTTGCTCTGGTTTTGGAACCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cicitadadericidadios ana intercadade contraticada a 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAACGGAACTTTGAGATTATATGCAATCGA-----AAGTGACAGGAAACATGCCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCTCAGTCCGCTTGATAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crereceaeccaecrerecereresaeseceaeraceraarcerraeres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAATTTAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTTAGAGGGTGAG---TGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAATCCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arideaderideargerecretaaaadegecegridecagrecerreceagereer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGTCTTCTCTCAGGCGGGGATCTCAGTCAGCACGTGCTGCTGCTGCAGCACCGGCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 573.6; DB 2; Length 208979;
Pred. No. 1.4e-164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88;
3; Mismatches 448; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .208979
/organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/clone="CT7-510C4"
/clone_lib="CitbcJ7 mouse BAC library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 65.6%;
Matches 1028; Conservative
                                                    142240
                                                                                                               149144
149244
154778
154878
157716
157816
161107
                                                                                                                                                                                                                                                                                                                                                                                                                                 184301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
```

ORIGIN

요 ò 염 ઠે 셤 ઠે 셤 Š g

ઠ

g ò g ठे 원 ઠે 요 요

8

8 8

음 강

TITLE

```
GFFFDDKCTLMEHSKMASKDSGLSGDITNHSVSPKENTRSSENCDIDAAVTPKHDFMS
TULNPPAHSTKKVLDVGKSIGEDGUFTYQGWQATKGKVALSLGRREBELLEFKAG
ADKHGNYKGNADATLFHNHDKPGRCVKVPLFGGKEEKLATKDKPTLGSCGGKIFFKTYH
ALVLHSRVHRNSRSDSESSNISGGEGALLVCAANEVSHDQAVSDPNPDPVASRVTLOE
SDEDBUBGNADAQTDKPEDGEPKLKAKGLPTSKECFKGKTFSRYYLLHILHTRTHTGERV
TRCEFCDYAAAQTSLRYHLERHHFKFRGEDSNAHVKSIGKNSTPQGTGDPMPUDNH
GNEARPKQTISNPTKKOFVKAKDQGKSRQPSENSEGREEIIPNRERTSTPTQVFSKEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PVPRSDOQVPSPADWIMEENDSLSLCEKÖHLLHNSLSIKEEAQDNSLPMKEDVKPINL
KRESNSSYPPSTNSALSVSTCPYCGYKSYKSLYPPULILHQKLTHKSNSBADVPKNIRENTA
AQMAAMRTGCPLVLKGVDVPPLTYGKKCKTPPSVQPKINPRRPKGLSFLPNKAAAGS
ESPEGGPNKLHYRPTHAPPLVNHSTWQPDRQGISHLLERMQQSEQNVTARDITYPGRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SSSVPSWSGEYPFSRMLNSTQLESGEPYSKRLKHNTPSADSTVYPTKTDVVLNTPYSK
LASFLLQEKSLLNSGAPLLPHSASSSHAVESRWRPIIPAPPTAGPTYRALDPSFSREP
SSITEAKRAPINRHVSKRVFGPNEKA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   941 CCGAGAGCATCTCCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATA 1000
                                                                                                                                                                                                                                                                                                                                                                             ETFLMQAEGDLAFDCMFCDQTYKHHEDLGKHVLVQHRPTLCEPEVLRVEAEYLGPLDK
RRKASVPLVKEEVKEEMKEKEEFDCEVCGQTFELSAVLCAHQKKHKDSFTYCCTICGR
RPKEPWFLKNHKRTHTTRSGAKNKPPLSDEBILATINDVVQDQKPKSATSPYKLCHIC
                                                                                                                                                                                                                                                                                                                                                    translation="MPVQSLSEFDCPDGVGSAIGSQMESPDSSLTLKRTNTISHKNLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 823 CCAAAAGCGCAACATCTCCCTATAAATTGTGCATGATATGTGGGTTCTTCTTCCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           343 AAACCTTTTTAATGCAGGCAGAGGGAGACCTGGCATTTGACTGCATGTTTTGCGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     536 CCTTCACACATTCAGAAGACCTTAATAAAACATGTCTTAATGCAACACGGGCCTACCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     655 ------GTGCGAACAGAACTCCCAAGGAAAAGAATTGCAAGGAAAATGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          583 TTGACTGTGAGGTTTGTGGGTCAGACTTTTGAGCTTTCTGGCTGTCTTGGGTGCCCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         643 AGAAGCACAAAGATTCCTTCACCTACTGCTGTACTATCTGTGGGAGAAGATTTAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGGTTTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGGCCAGAAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGGTTCTTAAAAATCATAAGAGAACCCATACAACCAGATCAGGGGCCAAAAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         763 CGCCTCTTTCTGATGAAGACATACTGGCGACAATAAATGATGTTGTTCAAGATCAGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    476 AAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463 GIGAACCAGAAGICCTCCGTGTTGAGGCGGAGTACCTTGGTCCTCTGGATAAGCGCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTTGATGTTGAGATCCACATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAACACACAAAAATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 3512;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches 207; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 217.8; DB 5
Pred. No. 4.6e-55;
                                                                                                                                                                                                       /codon_start=1
/product="LOC398381 protein"
/protein_id="AAH72191.1"
                           note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                         xref="LocusID:398381"
                                                                                                                 db_xref="LocusID:398381"
                                                                                                                                                                                                                                                                                          db_xref="GI:47940272
                                                                                  gene="LOC398381"
                                                                                                                                                                        /gene="LOC398381"
lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14.5%;
                                                                                                                                          .3206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                         <del>,</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                          gene
                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                       Klausner, R.D., Colling, F.S., Wagner, L.S., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Morenzon, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., Morley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Halton, E., Garcia, A.M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Butterfield, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodrigues, A., Schein, J.E., Jones, S.J. and Marra, M.B., Schnetz, J., Myers, R.W., Schein, J.E., Jones, S.J. and Marra, M.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (01-JUN-2004) National Institutes of Health, Xenopus Gene Collection (XGC), National Institute of Child Health and Human Development, 6100 Executive Boulevard, Room 4B01, Rockville, MD 20892-7510, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 info@bcggc.bc.ca
Steve Jones, Sarah Barber, Mabel Brown-John, Yaron Butterfield,
Andy Chan, Steve S. Chand, William Chow, Alison Cloutier, Ruth
Andy Chan, Steve S. Chand, William Chow, Alison Cloutier, Ruth
Featherstone, Malachi Griffith, Obi Griffith, Ran Guin, Nancy Liao,
Kim MacDonald, Amara Masson, Mike R. Mayo, Josh Moran, Ryan Morin,
Teika Olson, Diana Palmquist, Anca Petrescu, Anna Liisa Prahbu,
Parvaneh Saeedi, JR Santos, Angelique Schnerch, Ursula Skalska,
Duane Smailus, Jeff Stott, Miranda Tsai, George Yang, Jacquie
Schein, Asim Siddiqui, Rob Holt, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clone distribution: MGC clone distribution information can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       through the I.M.A.G.E. Consortium/LLML at: http://image.llnl.gov
Series: IRAK Plate: 152 Row: m Column: 16
This clone was selected for full length sequencing because it
passed the following selection criteria: Hexamer frequency ORF
analysis, Similarity but not identity to protein.
                                                                                                                                             Pontius, J., Clifton, S.W.
                                                                                                                                                                              Genetic and genomic tools for Xenopus research: The NIH Xenopus
initiative
                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleost;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: XGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Igor Dawid
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Genome Sequence Centre,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                    Feingold, E.A., Grouse, L.H., Derge, J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="MGC:80369 IMAGE:5074630"
/tissue type="Ovary, Xenopus"
/clone_lib="NICHD_XGC_Ov1"
                                                                                                              1 (bases 1 to 3512)
Klein, S.L., Strausberg, R.L., Wagner, L.,
and Richardson, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'organism="Xenopus laevis"
                                                                                                                                                                                                                                                              Dev. Dyn. 225 (4), 384-391 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:8355"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klein, S. and Strausberg, R. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 3512)
                                                                                                                                                                                                                                                                                                                         (bases 1 to 3512)
                                                                                                                                                                                                                                                                                                                                                 Strausberg, R.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIH-MGC Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12477932
                                                                                                                                                                                                                                                                                       12454917
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
AUTHORS
                                                                                                              REFERENCE
                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
```

REMARK

COMMENT

TITLE

FEATURES

qq

Search completed: June 29, 2005, 01:05:49 Job time: 4340.72 Becs

114 Page Blank (uspto)

```
5.1.6
Compugen Ltd.
GenCore version (c) 1993 - 2005
           Copyright
```

OM nucleic - nucleic search, using sw model

June 28, 2005, 14:28:52 ; Search time 527.33 Seconds (without alignments) 16917.381 Million cell updates/sec Run on:

US-08-731-499-3 1507

Title: Perfect score:

1 GCAGGTTGCTGGGATTGACT......GGTCTTGCACTCCAGGGTCC 1507 Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

4390206 segs, 2959870667 residues Searched:

8780412

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N_Geneseq_16Dec04:* geneseqn1980s:* Database :

geneseqn2003ds:* geneseqn2004as:* geneseqn2003cs:* geneseqn2002bs:* geneseqn2003as:* geneseqn2003bs:* geneseqn2001bs:* geneseqn2002as:* geneseqn2001as: geneseqn1990s:* geneseqn2000s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004bs:*

Acn44986 Human gen Acc50334 Breast ca Add14635 Human Bro Adr66761 Human pro Adr65858 Human pro Adp07267 Human pro Acn44987 Human RN Acn44984 Mouse gen Acn44985 Mouse gen Aak81095 Human imm Aak81093 Human imm Ach76516 Human gen Aac07753 Human sec Aav88042 BST clone Acn40355 Tumour-as Adr25650 Breast ca Abt07614 Human bre Aav04698 Homo sapi Description SUMMARIES ACC50334 ADD14635 ADB66561 ADR65858 ADR07267 ACN44987 ACN44984 ACN44985 AAK81095 AAK81093 AAK81093 AAK81093 AAK81093 AAK81093 AAK81093 AAK81093 AAK81093 AAK81093 AAV04698 ACN44986 Query Match Length DB 469 5994 6033 8156 36022 10282 566 14906 14.3 10.4 7.0 6.8 Score 1365 1337.2 1337.2 1337.2 11337.2 11337.2 11337.2 11337.2 11337.2 1087.2 573.6 324.2 215.6 197.2 156.4 104.8 103.2 Result Š. O

Ach90216 Human gen	Adr00072 ZNF217 PC	Ade07836 Novel cod	Ach87715 Human gen	Ach86998 Human gen	Adl71050 Gene enco	Aai58185 Human pol	Adq98391 DNA encod	Adb48151 Novel hum	Adr25783 Breast ca	Adq87590 Human tum	Abk42507 Genomic s	Abk42509 Genomic s	Adb60663 Connectiv	Adb60665 Connectiv	Adl71048 Gene enco	Ach73808 Human gen	Aas31069 Human dia	Adm02211 Human cDN	Aak65370 Human imm	Aas25920 Human cDN	Abx73261 Human nov	Aas26371 Human cDN	Abx73712 Human nov	Aas25921 Human cDN
ACH90216	ADR00072	ADE07836	ACH87715	ACH86998	ADL71050	AAI58185	ADQ98391	ADB48151	ADR25783	ADQ87590	ABK42507	ABK42509	ADB60663	ADB60665	ADL71048	ACH73808	AAS31069	ADM02211	AAK65370	AAS25920	ABX73261	AAS26371	ABX73712	AAS25921
12	13	10	12	12	1	4	Ŋ	σ	13	13	4	4	6	σ	1	17	4	1	4	4	œ	4	æ	4
251	70	2706	1014	1229	2706	2765	2765	2765	3039	3040	3617	3617	3617	3617	2909	508	772	2375	10926	1995	1995	1584	1584	2014
6.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.2	3.9	9.9	3.9	3.9	3.9	3.9	3.6	3.6	3.6
97	70	70	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	63.6	59.2	59.2	59.2	59.2	58.4	58.4	53.6	53.6	53.6
21	22	23	24	25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
υ			υ	v																				υ

ALIGNMENTS

RESULT

20q13 amplicon; chromosome 20; tumour; detection; C2H2 zinc finger; chromosomal abhormalities; probe; gene therapy; antisense inhibition; treatment; age-related macular degeneration; retinitis pigmentation; Leber's congenital amaurosis; ds. Rommens Kowbel D, Homo sapiens 20q13 amplicon cc49 transcript. Godfrey T, AAV04698 standard; cDNA; 1507 BP. Hwang S, 96US-00680395. 96US-00731499. 97US-00785532. 97WO-US012343. (first entry) (REGC) UNIV CALIFORNIA Collins CC, WO9802539-A1. 15-JUL-1996; 16-OCT-1996; 15-JUL-1997; 17-JAN-1997; 21-JUL-1998 22-JAN-1998 Gray JW, AAV04698; Ношо AAV04698

New sequences from the 20q13 amplicon - used for detecting chromosomal abnormalities, particularly tumours, and for developing products for treating diseases. ņ WPI; 1998-110587/10.

Claim 1; Page 61-62; 91pp; English.

The sequence is that of a cDNA sequence cc49, which was isolated from the 20q13 amplicon. It shows homology to C2H2 zinc finger genes. It can be used as a probe for the detection of chromosomal abnormalities at 20q13. It and other sequences isolated from the 20q13 amplicon are consistently

us-08-731-499-3.rng

N

```
WO2003073826-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                    901
                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                   961
                                                                                                                                                           1021
                                                                                                                                                                                 1021
                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                             901
                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACN44986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
ACN44986
                                                           8 6
                                                                                                                            ద
                                                                                                                                                        8 6
                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                    ठ
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
amplified in primary tumours. These sequences are useful as probes or as probe targets for monitoring the relative copy number of corresponding sequences from a biological sample such as tumour cells. The sequences can also be used in therapeutic applications for modulating the expression of the endogenous gene or the activity of the gene product. Examples of therapeutic approaches include antisense inhibition of gene expression, gene therapy, and monoclonal antibodies that specifically bind the gene products. The products can also be used in the treatment of other diseases, e.g. age-related macular degeneration, Leber's congenital amaurosis and retinitis pigmentation
                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                     CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                GACTATACACTTTCTTTTGAACTTTTATAATAATAATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                              CTTAATGTACATGGATGGCCAAGAGTGGATTGGCAGCTCTTTGCCAGTCCGATGGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                     GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                             GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                                                                             CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                     TTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                                                                           TTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                   GACTATACACTTTCTTTTGAACTTTTATAATAATATTTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTIACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                  ACTGTTAGAGGGTGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC
                                                                                                                                                                                             Gaps
                                                                                                                                                                                             ·
0
                                                                                                                                                                      DB 2; Length 1507;
                                                                                                                                              Sequence 1507 BP; 445 A; 354 C; 364 G; 340 T; 0 U; 4 Other;
                                                                                                                                                                                             0; Indels
                                                                                                                                                                     99.9%; Score 1504.8; 100.0%; Pred. No. 0; ive 0; Mismatches
                                                                                                                                                                   Query Match
Best Local Similarity 100.
Matches 1507; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
             g
                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                  à
```

1020 1080 1140 1140 1020 1080 1200 1200 1260 1260 1320 1320 1380 1380 1440 1440 1500 960 900 900 CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGGAGCCC AGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTCTCCT CAAGGAGGATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA CAAGGAGGAATGCCGTCCTCGAGGAGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACC ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAG ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAG GAATTGGGGCCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA GAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAGAGAAGTGCAAACACTCC ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCC **ATGCGGACRCATAATGGCAAATCGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGT** TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACC GAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCCC 88 gene; cancer; human; Cytostatic; carcinoma; lymphoma; BP Human genomic sequence hCG37127 ACN44986 standard; DNA; 36022 2003WO-US006235 01-MAR-2002; 2002US-00087192. (first entry) (SAGR-) SAGRES DISCOVERY AGGGTCC 1507 AGGGTCC 1507

1016

10729

10789

us-08-731-499-3.rng

```
10610 GCGAACAGAACCTCCCAAGGAAAAAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                   .0850 GAGTAGTCCAGCAACGATCAACGAGGTCGTCCCAGGTGCACGCGCCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .0670 TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
                                                                                                                                                                                                                10730 TTTCACTTACGGGTGTAACATGTGCGGAAGAATCATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11030 rccacaaccaaccaaricccrccaccaccaccacriccrccacricracricaacricaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11090 AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11150 CACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCCACGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11390 GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTTTGCA
                                                                                                                                                                      TTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                         TCACATGCGGACRCATAATGGCAAATCGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                              GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20q13 amplicon; chromosome 20; tumour; detection; ZABC-1 gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens 20q13 amplicon ZABC-1 genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA; 10282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1998
                                                                                                                                                                   777
                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1077
                                                                                                                                                                                                                                                                                                                                              897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1257
657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV09023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV09023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV09023
                                                                                                                요
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                               셤
                                                                                                                                                                   ઠે
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGTIGCTGGGATIGACTICTIGCTCAATIGAAACACTCATTCAATGGAGACAAAGAGA 10010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACAGGCCTACCCTCTG 10549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTGTTAGAGGGGTGAGAGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC 10250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10251 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC 10310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10311 CTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGAG 10370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0371 ATGGAGGATGCCTTGTCAATGAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAA 10430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417
                                                                                                                                                                                 are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates; (ii) for screening of bioactive agent capable of binding to Carcinoma Associated Protein (CAP); (iii) for screening of a bioactive agent capable of medulating the activity of CAP; (iv) for evaluating the effect of a candidate carcinoma drug; (v) for diagnosing carcinoma; (vi) for inhibiting the activity of CAP; (vii) for treating carcinoma; (vii) for neutralizing the effect of CAP; (ix) as a biochip; (x) for diagnosing carcinoma; and the CAP are useful as abiochip; (x) for diagnosing carcinoma associated (CA) gene copy number in addition, the CA genes are useful as BNA vaccines and the CAP are useful as markers of carcinoma including lymphoma. The present sequence is one such CA coding sequence. Note: This parent is an equivalent to basic patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959
                                                        Recombinant nucleic acid useful for diagnosis and treatment of carcinoma comprises a nucleotide sequence.
                                                                                                                                                                   present invention relates to novel DNA and protein sequences which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTGGAAAGAACCAGTGACACCCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGTTAGA - GGGTGAGTGACAGGTCTTAC - AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTATACACTTTTTTTTTTAAATAAATATTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 36022 BP; 9645 A; 7326 C; 8145 G; 10906 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 11; Length 36022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 92.1%; Score 1387.2; Best Local Similarity 97.3%; Pred. No. 0; Matches 1470; Conservative 3; Mismatches
                                                                                                                      Claim 1; SEQ ID NO 1708; Opp; English
                 WPI; 2003-328604/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0490
```

ઠે 셤 ઠે g ò 셤 ઠે g ò 원 ઠે 셤 Š g ઠે

11089

11149

11269

11329

1436

11449

යි සි

g ઠે g ઠે

```
360
                                                                                                   419
                                                                                                                                                                            2903
                                                                                                                                                                                                                                                                            3022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1198
                                                                          2783
                                                                                                                          2843
                                                                                                                                                   478
                                                                                                                                                                                                    538
                                                                                                                                                                                                                                                     598
                                                                                                                                                                                                                                                                                                                            3082
                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                             3142
                                                                                                                                                                                                                                                                                                                                                                                                    778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1318
 300
                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                       838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3561
                                                                                                                                                                                                                                                                                                                                                                                                                              3202
                                                                                                                                            ò
                                                                                                                                                                        셤
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                              ð
                                                                   d
                                                                                                 8
                                                                                                                    셤
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                            જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                            The sequence is that of the genomic sequence of ZABC-1 (zinc finger amplified in breast cancer). It maps to the core of the 20q13.2 amplicon and is overexpressed in primary tumours and breast cancer cell lines having 20q13.2 amplification. The sexact coding region for the genomic sequence is not given. The sequence can be used as a probe for the detection of chromosomal abnormalities at 20q13. It and other sequences isolated from the 20q13 amplicon are consistently amplified in primary tumours. These sequences are useful as probes or as probe targets for monitoring the relative copy number of corresponding sequences from a monitoring the relative copy number of corresponding sequences from a contoring the activity of the gene product. Examples of the endogenous gene or the activity of the gene product. Examples of therapeutic applications for modulating the expression, gene therapy, and monoclonal antibodies that specifically bind the gene products. The products can also be used in the treatment of other diseases, e.g. agerelated macular degeneration, Leber's congenital amaurosis and retinitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTTAGAGGGGTGAGAGAGAGTGTTTAGCAGTGGCCTTATTCCAACTCCAGAAATTGCC 2722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      299
chromosomal abnormalities; probe; gene therapy; antisense inhibition; treatment; age-related macular degeneration; retinitis pigmentation; Leber's congenital amaurosis; zinc finger amplified in breast cancer; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                         for detecting chromosomal developing products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGITICCTCCGGAITIGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2543 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2603 ACTATACACTTTCTTTTGAACTTTTATAATATATTTGCTCTGGTTTTTGGAACCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2483 ACTAATGCTTTGTGCTCATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                            ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10282 BP; 2820 A; 2222 C; 2191 G; 3047 T; 0 U; 2 Other;
                                                                                                                                                                                                                             Rommens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 10282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                            Kowbel D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                    New sequences from the 20q13 amplicon - used abnormalities, particularly tumours, and for treating diseases.
                                                                                                                                                                                                                            Godfrey T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1365; DB; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 64-67; 91pp; English.
                                                                                                                                                                                                                            S,
                                                                                                                                                96US-00680395.
96US-00731499.
97US-00785532.
                                                                                                                                                                                                                             Hwang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 96.4%;
Matches 1455; Conservative
                                                                                                                          97WO-US012343
                                                                                                                                                                                                   (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                         Collins CC,
                                                                                                                                                                                                                                                   WPI; 1998-110587/10.
P-PSDB; AAW23975.
                                                  Homo sapiens
                                                                                                                          15-JUL-1997;
                                                                                                                                                  15-JUL-1996;
16-OCT-1996;
                                                                                                                                                                          17-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pigmentation
                                                                                                   22-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182
                                                                                                                                                                                                                            Gray JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 8
```

```
3740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3741 GGAGAAACAAATAAGGGCAGTTCTGCAGGCCTCTCGCAAGACAAAGAAGAAGTGCAAACAC 3800
                                                                                                                                                                                                                                          2902
                                                                                                                                                                                                                                                                                                                                                                                                                                  3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1378 TCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCCAAGTTACCCAGTAGCAAGGAGAAG 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3201
                                                                                                                                                                                                                                                                                                                                                                                       597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        957
                         2723 CAACGGAACTTTGAGATTATGCAATGGAAAGTGACAGGAAACATGCCAACTCAATCCC
                                                                                                                                                                                                                                TGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAACCAGCAGTICTICGGGTIGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCC
                                                                                               TCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCACTTACGGGGGTGTAACATGTGCGGAAGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCGGCCGAGAGCATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> agragiccasceaacearcaaceaecrececeaecrecececeeceaecarcrecrer</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATCTCACCCTGAAACGGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAGAAGAAGTGCAAACAC
                                                                                                                                       rctraargracarggaccagaagrgarragcagcrcrcrragcagrccarga
                                                                                                                                                                                          TGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAA
                                                                                                                                                                                                                                                                                                                                       AAAATGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCAGACC
                                                                                                                                                                                                                                                                                                                                                                                    TTCACACATTCAGAAGACCTTAAATAAAACATGTTAATGCAACACGGCCTACCCTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                    2962 Trcacacarrcagaagaccrraaraaacargrerraargcaacacccgccraccrcrgr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTT
```

Jun

Thu

```
GACAAAGAGCACTAATGCTTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1001
                                                                                                                        121
                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
            22
                                                        112
                                                                           61
                                                                                                  172
                                                                                                                                              231
                                                                                                                                                                                         289
                                                                                                                                                                                                               241
                                                                                                                                                                                                                                    349
                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                408
                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                      527
                                                                                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1067
                                                                       g
                                                                                                                      g
                                                                                                                                                              셤
                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                           . 심
                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                            엄
                                                       δ
                                                                                                δ
                                                                                                                                       કે
                                                                                                                                                                                        ठ
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
CCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCAC 3920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes a method for assessing whether a patient is afflicted with breast cancer. The method comprises comparing the level of expression of a marker (gene/polypeptide see ACCS0076 to ACCS0314 and ABR47386 to ABR4738 in a patient sample and the normal level of expression of the marker in a control non-breast cancer sample, where a significant increase in the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with breast cancer. The breast cancer associated sequences from the present invention have cytostatic activities and can be used in gene therapy. The method is useful for diagnosing and treating breast cancer. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          expression
                                  CCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Meyers RE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lillie J, Gannavarapu M, Glatt K, Hoersh S, Kamatkar S;
Mertens M, Monahan JE, Myer V, Wang Y, Xu Y, Zhao X, Meyers R
Bast RC, Hortobagyi GN, Pusztai L, Meric F, Sahin A, Mills GB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Breast cancer diagnosis or treatment by comparing the level of expr
of a marker in a patient sample with that in the control non-breast
cancer sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5632 BP; 1637 A; 1166 C; 1258 G; 1571 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                88
                                                                                                                                                                                                                                               cancer; cytostatic; gene therapy; gene;
                                                                                                                                                                                                                         Breast cancer associated cDNA sequence SEQ ID NO:505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1337.2;
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 505; 128pp; English.
                                                                                                                                                        踞.
                                                                                                                                                                                                                                                                                                                                                          ; 2001US-0299887P.
; 2001US-0301572P.
; 2001US-0306501P.
; 2001US-0325002P.
; 2002US-0362585P.
                                                                                                                                                        ACC50334 standard; cDNA; 5632
                                                                                                                                                                                                                                                                                                                                      21-JUN-2002; 2002WO-US019669
                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-0380391P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 88.7%;
Best Local Similarity 97.2%;
Matches 1420; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                       (MILL-) MILLENIUM PHARM INC.
                                                                                                                                                                                                   (first entry)
                                                                                          ||||||||||||
|TCCAGGGTCC 3930
                                                                             TCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-210381/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; ABR47632
                                                                                                                                                                                                                                                                                           WO2003004989-A2
                                                                                                                                                                                                                                               Human; breast
                                                                                                                                                                                                                                                                                                                                                           21-JUN-2001; 27-JUN-2001; 218-JUL-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                          25-SEP-2001;
05-MAR-2002;
14-MAY-2002;
                                                                                                                                                                                                   12-JUN-2003
                                                                                                                                                                                                                                                                                                                 16-JAN-2003
            3801
                                  1438
                                                                                                 3921
                                                       3861
                                                                             1498
                                                                                                                                 g
                                                                                              a
                                 ઠે
                                                                    કે
```

9

Gaps

9

Indels

32;

```
1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTTAGAGGACTATACACTTTCTTTTGAACTTTTATAATAATAATATTTGCTCTGGTTTTT 180
                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                             348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      959
111
                                                                                           171
                                                                                                                                       TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG 120
                                                                                                                                                                                                                                                                                  288
                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAG 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACAAAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCATCTCCTCTCCTTACAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                                                                             CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                        TCCGATGGAGATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421 TACACAAGAAAAAAATGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTCAAGTGCGAACAGAAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gretaatteageacegeaagetecacecaaaaaaactectritegetaceagegege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGACAGACTCTCCACAAGGAATGCCGTCCTCGAGGGAGGACTTCTGCTGCAGTTGTTCA
                                                                                                                                                                                      AAGTTAGAGGACTATACACTTTTCAACTTTTATAATAATATTTGCTCTGG-TTTT
                                                                                                                                                                                                                                                                                    GGAACCCAGGACTGTTAGA-GGGTGAGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467 ACACAAAGAAAAAAGTCACAATCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        craccercrereaaceageagricercegerreaageageagrarereagreegerreara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u> AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTTAAAAATCACATGCGGACACATAATGGCAAAATCGGGGGCCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCGAGA</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGCCAGACCTTCACACTTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
```

```
1366
                                                                                                                                                                                                                                                                                                                                                            1367 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA 1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC 1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380 GCAAGGAGAAGCCCACTCACTCCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCCAGC 1439
                      1139
                                                                                                                                                                                                                                                               1200 GCCAAGAAGTGAAGGAATCGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes a predictor set comprising a plurality of polynucleotides or polypeptides whose expression pattern is predictive of the response of cells to treatment with a compound that modulates protein tyrosine kinase activity or members of the protein tyrosine kinase attivity or members of the protein tyrosine kinase protein members of the protein tyrosine kinase modulating the activity of cells, comprising obtaining a sample of determining whether the cells express a plurality of markers, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            predictor set; protein tyrosine kinase activity modulator;
protein tyrosine kinase pathway; protein tyrosine kinase; cytostatic;
gene therapy; drug sensitivity; genetic profile; cancer; human; gene;
1080 ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC
                                                                                                                                                                                                                                                                                                                            1140 TCGATCCGTTCACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTT
                                                                                                                                                                                                      GCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New polynucleotides and polypeptides for predicting the activity of compounds that interact with protein tyrosine kinases and/or protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human src biomarker polynucleotide SEQ ID NO:29
                                                                                                               ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shaw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; SEQ ID NO 29; 139pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1487 TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멾.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ဗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADD14635 standard; cDNA; 5632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JAN-2002; 2002US-0350061P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JAN-2003; 2003WO-US001981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tyrosine kinase pathways.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BRIM ) BRISTOL-MYERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fairchild
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-636735/60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; ADD14040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003062395-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                            1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1427
                                                                                                                                                                                                      1247
                                                                                                                                                                                                                                                                                                                         1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Huang F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADD14635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 5
ADD14635
ID ADD14635
ID ADD1
XX
AXC ADD1
XX
DT 01-J
XX
KW Pred
KW Fred
KW Fre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
   셤
                                                                      ò
                                                                                                                      g
                                                                                                                                                                                               ð
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
correlating the expression of the markers to the compound's ability to modulate the activity of the cells; (2) a plurality of cell lines for identifying polynucleotides and polypeptides whose expression levels correlate with compound sensitivity or resistance of cells associated with a disease state, compound sensitivity or resistance of cells associated with a disease state, compounds ensitivity or resistance of cells associated with a disease state, comprising subjecting the plurality of cell lines to one or more compounds, analysing the expression pattern of a microarray of polypucleotides or polypeptides, and selecting polynucleotides or polypeptides that predict the sensitivity or resistance of cells associated with a disease state by using the expression pattern of the microarray. The polynucleotides and polypeptides are useful in predicting the polynucleotides have cytostatic activities, and can be used in gene therapy. The polynucleotides and polypeptides are useful in predicting the activity in patients to allow the development of individualized sensitivity in patients to allow the development of individualized cancer) based on patient response at an olecular level. The present cancer based on patient response at a molecular level. The present cancer begins to the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112 TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACAAAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAATTGCCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGATGGAGATGCAGGATGCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480 GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540 CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52 GACAAAGAGCACTAATGCTTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAACCCAGGACTGTTAGA-GGGTGAGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 GGAACCCAGGGCTGTTAGAGGGGTGACAAGTCTTACAAGTGGCCTTATTCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349 AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 AACTCAATCCCTCTTAATGTACATGGATGGCCCAGAAGTGATTGGCAGCTCTTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 408 TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  167 ACACAAAGAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88.7%; Score 1337.2; DB 10; Length 5632; 97.2%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5632 BP; 1637 A; 1166 C; 1258 G; 1571 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 97.2
Matches 1420; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
```

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1439
                                                                                                                                                                                                                                                                     GTCTAATTGAGCACCGCAAGGTGCACACAAAAAACTGCTTTCGGTACCAGCAGCGCGC 1066
                                                                                                                                                                                                                                                                                                                                  1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200 GCCAAGAAGTGAAGGAATCGGGGCAAGAAGGAGGCACCGACAACGACGATTCGAGTTCCG 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1367 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA 1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC 1486
                                                                                                                                                                                                           GCATCTCCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA 1006
                                                                                                                                                                                                                                                                                                                                                               1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGGATCCCAAGTTACCCAGTA 1379
                                                                                                                                                                              899
                             826
                                                          779
                                                                                       988
                                                                                                                    839
                                                                                                                                                 AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA 946
                                                                                                                                                                                                                                         959
660 GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACACATGAGAACAC 719
                                           720 ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                       780 TTCTTAAAAATCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                    840 AAGGCTTGGAGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCGGGA
                                                                                                                                                                                                                              900 GCATCTCCTTACAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                                                           GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCGGGC
                                                                                                                                                                                                                                                                                                                                 1080 ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380 GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCACC
                                                                                       TTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                            ACTIGAGACCAAAATCICACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1440 TGGTCTTGCACTCCAGGGTCC 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1487 TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                 887
                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                       1001
                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                  1067
                                                                                                                                                                                                                                                                                                                                                                                            1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1427
                            767
                                                                                      827
                                                  셤
                                                                                                               요
                                                                                                                                                ò
                                                                                                                                                                       셤
                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                            ઠે
                                                                              8
```

Human prostatic carcinoma derived DNA SEQ ID 54 human; cytostatic; diagnosis; prostatic cancer; differential expression analysis; ds. ADR66761 standard; DNA; 5632 (first entry) WO2004076614-A2 02-DEC-2004 Homo sapiens ADR66761 ADR66761 XX AC ADR XX XX DT 02-1 XX KW hum KW dif KW dif KW dif KW GS HOW XX CS HOW CS HOW XX CS HOW CS HOW XX CS HOW CS

10-SEP-2004

9

Gaps

. 9

32; Indels

DB 13; Length 5632;

Sequence 5632 BP; 1637 A; 1167 C; 1257 G; 1571 T; 0 U; 0 Other;

ery Match 88.7%; Score 1337.2; Est Local Similarity 97.2%; Pred. No. 0; tches 1420; Conservative 3; Mismatches

Query Match

171

9

61 TATGCCTTGTTTGTGGAAAGAACCAGTGACCATCACTGAGGTTCCTAAAAGTTCGAAG 120

1 GACAAAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG 112 TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG

GACAAAGAGCACTAAATGCTTTTGTGCTGATTCATATTTTGAATCGAGGCATTGGGAACCCTG

52

8 요 ò 셤 ઠે 셤

AAGTTAGAGGACTATACACTTTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTT

```
This invention describes novel cytostatic polynuclectide and polypeptide sequences which can be used in a method for diagnosing prostatic cancer or the risk of developing prostatic cancer. Diagnosis is based on determining over transcription or over expression of the sequences in prostatic tissue. Screening for inhibitors of the sequences or detection substances involves a binding assay, any compounds that bind are selected, optionally after deconvolution of mixtures. Detection of a predetermined minimum level of the reporter indicates the presence of tumour cells. Inhibitors can be chosen from antisense oligonucleotides, short-interfering RNA or ribozymes; an organic molecule of molecular captumer against the polypeptide, preferably humanised or human; an anti-idotype, non-human conjugated, preferably humanised or human; an anti-idotype, non-human conjugated, preferably humanised or human; an anti-idotype, non-human conjugated postope. The polypeptides are identified in human prostatic cancer by differential expression analysis, using DNA microarrays. Detween normal and tumorous tissues, with (over)expression being detected by quantitative PCR. Analysis of prostatic cancer samples showed that concerve the polypetide of prostatic cancer samples showed that concerve the polypetide of prostatic cancer samples showed that concerve the prostatic cancer patients, or subjects at risk, were incubated from prostatic cancer patients, or subjects at risk, were incubated from prostatic cancer patients, or subjects at risk, were incubated second antibody; streptavidin-conjugated horseradish beroxidase and then diaminobenzidine as colour former (brown). The samples were counterstained with hemalum (blue). Malignant cells stained second antibody; streptavidin-conjugated horseradish cadenccarcinoma, membrane and cytoplasmic staining was very strong, and lymph node metastasses were also stained. ADR65954 represent the conjugation of the polyment in the method of the prostatic cancer as agains and polyment of the patences used 
                                                                                                                                                                                                                                                                                                                                                                                                                       New nucleic acids, and encoded proteins, from prostatic cancer tissue, useful for diagnosis, treatment and in screening for specific binding
                                                                                                                                                                                                                                                                              Rosenthal A, Hermann K, Pilarsky C, Specht
;, Bruemmendorf T, Kinnemann H, Roepcke S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 1423-1424; 1607pp; German.
                                                                    27-PEB-2003; 2003DE-01009985.
                     22-FEB-2004; 2004WO-DE000433.
                                                                                          14-MAY-2003; 2003DE-01022134.
                                                                                                                                                                                                                                                                                                       Beckmann G,
                                                                                                                                                              DAHL E.
ROSENTHAL A.
HERMANN K.
PILARSKY C.
                                                                                                                                                                                                                                                                            Dahl E,
                                                                                                                                                                                                                                                                                                                               Staub E;
                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-653386/63.
                                                                                                                                        HINZMANN B.
                                                                                                                                                                                                                                                                                                       Schmitt A,
Xinzhong L,
                                                                                                                                                                                                                                                                              Hinzmann B,
                                                                                                                                   (HINZ/) 1
(DAHL/) 1
(ROSE/) 1
(HERM/) 1
                                                                                                                                                                                                                                  (PILA/)
```

```
New nucleic acids, and encoded proteins, from prostatic cancer tissue, useful for diagnosis, treatment and in screening for specific binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 253-254; 1607pp; German.
                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-FEB-2003; 2003DE-01009985.
14-MAY-2003; 2003DE-01022134.
                                                                                                                                                                                                                                                                                                                                ADR65858 standard; DNA; 5632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-FEB-2004; 2004WO-DE000433.
                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Staub E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DAHL E.
ROSENTHAL A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-653386/63.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HINZMANN B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HERMANN K.
PILARSKY C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004076614-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                         02-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hinzmann B,
Schmitt A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-SEP-2004.
                                                 1367
               1260
                                                                                        1320
                                                                                                                            1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xinzhong
                                                                                                                                                                                                                                                                                                                                                                    ADR65858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (DAHL/)
(ROSE/)
(HERM/)
(PILA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HINZ/)
                                                                                                                                                                                                                                                                                           RESULT 7
                                                                                                                                                                                                                                                                                                              ADR65858
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                          ò
                                                                                                                                                     셤
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                    g
                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1307 AGAAGGAGCTTGGAGAAACAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGA 1366
                                  240
                                                                      348
                                                                                                         300
                                                                                                                                             407
                                                                                                                                                                                360
                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                              479
                                                                                                                                                                                                                                                                                                                                                                    586
                                                                                                                                                                                                                                                                                                                                                                                                         539
                                                                                                                                                                                                                                                                                                                                                                                                                                         646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                                       GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACCCTCTGTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTCAATCCCTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAG
                                                                                                                                                                                                                                                     361 recearedadaredadarecerrereaaredaaageaaceererrerecarreceage
                                                                                                                                                                                                                                                                                                                                                                    GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAGGTATGTGGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATCTCCTCTCCTTGCAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCTAATTGAGCACCGCAAGGTGCACACAAAAAAACTGCTTTCGGTACCAGCGGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTIGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080 ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCCTGTCAGATGCATCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140 TCGATCCGTTCACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200 GCCAAGAAGTGAAGGAATCGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
GGAACCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                 GGAACCCAGGCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTC
                                                                      CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                       CAGAAATTGCCCAACGGAACTTTGAGATTATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                             AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTTGCCAG
                                                                                                                                                                                                                    TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                           467 ACACAAAGAAAAATGTCAATCCGAATCGAGGGGAATATGCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                TACACAGAAAAAATGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780 Trotradadarchonteceses carates de la recese de constante de la recese de la rec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840 AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1247
                                                                                                         241
                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1187
                                181
                                                                      289
                                                                                                                                             349
                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                         587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1127
                                                                                                                                                                                                                    408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           827
                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                        셤
                                                                     ò
                                                                                                   유
                                                                                                                                           8
                                                                                                                                                                        g
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
1319
                                                                                                                             1486
                                                                                                                                                                  1439
1380 GCAAGGAGAAGACCCACTCACTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCACCAGC
                                                         AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA
                                                                                                                                 GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC
```

Human prostatic carcinoma derived DNA SEQ ID

#1. 54

human; cytostatic; diagnosis; prostatic cancer; differential expression analysis; ds.

Ŧ, Dahl E, Rosenthal A, Hermann K, Pilarsky C, Specht Beckmann G, Bruemmendorf T, Kinnemann H, Roepcke S; This invention describes novel cytostatic polynucleotide and polypeptide sequences which can be used in a method for diagnosing prostatic cancer. Or the risk of developing prostatic cancer. Diagnosis is based on determining over transcription or over expression of the sequences in prostatic tissue. Screening for inhibitors of the sequences or detection constant can banding assay, any compounds that bind are selected, optionally after deconvolution of mixtures. Detection of a predetermined minimum level of the reporter indicates the presence of tumour cells. Inhibitors can be chosen from antisense oligonucleotides, short-interfering RNA or ribozymes; an organic molecule of molecular weight below 5000, preferably 300, that binds to the polypeptide, an aptamer against the polypeptide, the connectional) antibody (Ab) against the polypeptide, preferably humanised or human; an anti-idiotype, non-human (monoclonal) antibody directed against Ab or any of the above derivatised with a reporter group, cell toxin, immunostimulatory molecules and/or

σ

```
BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-AUG-2002; 2002DE-01039313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; DNA; 5653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-NOV-2002; 2002DE-01055104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ds; proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DE10255104-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human ZNF217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JUL-2004
                                                                                                  840
                                                                                                                                                        006
                                                                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                        1067
                                                                                                                                                                                                                                                                                             1127
                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                   1187
                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                        1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                              947
                                                                                                                                                                                  1001
                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1487
                   827
                                                                        887
                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADP07267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADP07267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADP07267
ID ADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                         g
                                                                       ઠે
                                                                                            셤
                                                                                                                          ઠે
                                                                                                                                                    셤
                                                                                                                                                                                ઠે
                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
radioisotope. The polymucleotides are identified in human prostatic cancer by differential expression analysis, using DNA microarrays, between normal and tumorous tissues, with (over)expression being detected by quantitative PCR. Analysis of prostatic cancer samples showed that CD24 was upregulated in many of them. Sections of tissue, isolated from prostatic cancer patients, or subjects at risk, were incubated sequentially with anti-human CD4 murine monoclonal antibodies; biotinylated second antibody; streptavidin-conjugated horseradish peroxidase and then diaminobenzidine as colour former (brown). The samples were counterstained with hemalum (blue). Malignant cells stained atrongly but non-malignant cells only weakly. In 15 of 63 samples of adenocarcinoma, membrane and cytoplasmic staining was very strong, and lymph node metastases were also stained. ADR65805-ADR66954 represent the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     779
                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                                                                                                                                                                                                              TATGCCTTGTTGTGGAAAGAACCAGTGACACCATCACTGAGGTTCCTAAAAGTTCGAAG 171
                                                                                                                                                                                                                                                                                                                                                                                  61 TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG 120
                                                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          826
                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAAAGAGCACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                   GACAAAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTTAGAGGACTATACACTTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                121 AAGTTAGAGGACTATACACTTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAACCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAAATTGCCCAACGGAACTTTGAGATTATGCCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTCAATCCCTCTTAATGTACATGGATGGCCAGAAGTGATTGGCAGCTCTCTTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACACAAAGAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACACAAGAAAAAAATGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGTCAAGTGCGAACAGAACCTCCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Acaaagarricrrrcacrraccegricraacarcrecceaagaagarricaagagccrrggr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                  DB 13; Length 5632;
                                                                                                                                                                                                                        Sequence 5632 BP; 1637 A; 1166 C; 1258 G; 1571 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                             32; Indels
                                                                                                                                                                                                                                                 ; Score 1337.2;
; Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 97.2%;
Matches 1420; Conservative
                                                                                                                                                                                                invention
                                                                                                                                                                                                                                                                                                          52
                                                                                                                                                                                                                                                                                                                                                              112
                                                                                                                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167
  888888888888888888888
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
```

1006 1066 1126 1186 1139 1246 1199 1259 1319 1426 1379 1486 1439 GTCTAATTGAGCACCGCAAGGTGCACACAAAAAACTGCTTTCGGTACCAGCAGCGCGC 1019 GCCAAGAAGTGAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCCG 1306 AGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGA 1366 946 886 839 899 GCATCTCCTCTCCTTACAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA ACTIGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC ACTIGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCACAGATGCATCCCTCAGC TCGATCCGTTCACCCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT TCGATCCGTTCACCCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTT GCCAAGAAGTGAAGGAATCGGGGCAAGAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA **AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA** 1380 GCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGCGAAAGCTTTCAGAACCTACCACCCAGC TTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGGCCCAGAAGCAAACTGCAGC AAGGCTŢGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCGGCGAGA AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA GCATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAA AGAAGGAGCTTGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAAGAGA GCAAGGAGAAGCCCACTCACTGCTGCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC disease; breast; methylation; CpG; bisulfite; human. GTCTAATTGAGCACCGCAAGGTGCACACACAAAAAACTGCTTTCGGTACCAGCAGCGCGC (EPIG-) EPIGENOMICS AG.

Analyzing proliferative diseases of breast cells, useful e.g. for diagnosis, prognosis and treatment of breast cancer, by determining methylation status of specific genes. Claim 1; Page; 22pp; German. WPI; 2004-284340/27. GENBANK; NM_006526

This invention describes a novel method of analysing proliferative diseases of breast cells by determining the methylation status of certain glesease of breast cells by determining the methylation status of certain genes. The invention also describes nucleic acids or their complements, oligomers, especially oligomerlectides or peptide nucleic acid oligomers. In the their diseases of breast cells that are associated with the methylation status of CpG breast cells that are associated with the methylation status of CpG breast cells that are associated with the methylation status of CpG incleic acids are genomic sequences [5' and/or regulatory and/or CpG or cells involves a genomic sequences [5' and/or regulatory and/or CpG rich regions]. The base sequence of the oligomer includes at least one process involves a genomic DNA sample treated chemically, and or CpG island, especially with C in the middle third of the sequence. The process involves a genomic DNA sample treated chemically, specifically with a bisulfite reagent, to convert non-methylated C utacil or some conter base having brose-pairing properties different from those of C. Fragments of the realism of the hybridised oligomer by a polymerase and the methylation status of the hybridised oligomer by the oligomer, optionally with extension of the hybridised oligomer by a conferentiance by analysis of the amplitions, particularly by hybridisation to the oligomer, optionally with extension of the hybridised oligomer by a conference of the amplitions particularly by hybridisation enzymes, the oligomer, optionally with extension of the hybridised oligomer by a conference of the amplitions particularly by permine by a conference of the amplition particularly by phybridisation. In either method, more than 10 fragments of known mass that can be detected by mass and/or releasable fragments of known mass that can be detected by mass and/or releasable fragments of known mass that can be detected by mass and/or releasable fragments of breast cells. The method is used fo

Sequence 5653 BP; 1656 A; 1167 C; 1258 G; 1572 T; 0 U; 0 Other;

111 171 120 230 180 288 240 348 CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC 300 9 TATGCCTTGTTGTGGAAAGAACCAGTGACCATCACTGAGCTTCCTAAAAGTTCGAAG AAGTTAGAGGACTATACACTTTTCAACTTTTAAAAAATATATGCTCTGG-TTTT GGAACCCAGGACTGTTAGA-GGGTGAGAGACTTTAC-AGTGGCCTTAATCCAACTC GGAACCCAGGGCTGTTAGAGGGGTGAGTGACAGTCTTACAAGTGGCCTTATTCCAACTC CAGAAATTGCCCCAACGGAACTTTGAGATTATACCAATCGAAAGTGACAGGAAACATGCC GACAAAGAGCACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG GACAAAGAGAACTAATGCTTTTGTGCTGATTCCATATTTGAATCGAGGCATTGGGAACCCTG Gaps Length 5653; 9 32; Indels DB 12; 3; Mismatches Score 1337.2; Pred. No. 0; 88.7%; 97.2%; Best Local Similarity 77.2 Matches 1420; Conservative Local Similarity ч 112 172 289 22 61 121 231 241 181 Query Match

a

ò

ð g g õ ద ò

ò

1199 1306 1066 1126 1079 1186 1259 AGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGA 1366 1426 1379 1006 646 706 992 946 899 959 407 466 420 479 629 719 779 886 839 960 GTCTAATTGAGCACGCAAGGTGCACAAAAAAACTGCTTTCGGTACCAGCAGCGCC 1140 TCGATCCGTTCACCACCTTCCAGGCTTGGCTACCAAAGGAAAAGTTGCCATTT 1320 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA 301 AACTCAATCCCTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAG CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA Greaderardreaccaeacarriracacrecririrgarcricaearccacareacac AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA GCATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCTTTCCTATTTCCAAATAAAGAAA 900 GCATCTCCTCTCCTACAAATCTGCATGGTTTGTGGCTTCCTATTTCCAATAAAGAAA 1020 AGACAGACTCTCCACACAGGAGGAATGCCGTCCTCGAGGGGAGGACTTCCTGCAGTTGTTCA 1080 ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGACGTGTCAGATGCATCCCTCAGC GCCAAGAAGAAGTTGGGGCAAGAAGAGGAGCACCGACAACGACGATTCGAGTTCCG 1200 gecaagaagrgaaggaaregggecaagaaggagcaeegaeaagagagraega AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCCAAGTTACCCAGTA 361 TCCGATGGAGATGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGC 467 ACACAAAGAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCT GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGC 480 GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGC AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT 500 AAAGTCCAAGTGCGAACAGAACCTCCCAAGGAAAGAATTGCAAGGAAAATGAATTTAGCT GTGAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC **TTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC** GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGC ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT 099 1127 1247 1307 1260 647 1001 1067 1187 349 527 587 707 827 887 947 1367 408 d a g 셤 g 임 g 셤 ò a ò 원 à g ð g δ 셤 ò g ò ò ò a Š ద Š ò ò Š 8 ò Š

ઠે g Š 셤

us-08-731-499-3.rng

```
1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTCCACAAGGAGTATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAG 1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGAAGGAATCGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020 GCTTGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAA 1079
                                                                                                                                                                                                                                                                                                                              539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCC 1193
                                                                                                           299
                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   959
 GAGATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAA 180
                                                       239
                                                                                593
                                                                                                                                      653
                                                                                                                                                                359
                                                                                                                                                                                           713
                                                                                                                                                                                                                      419
                                                                                                                                                                                                                                                773
                                                                                                                                                                                                                                                                                                     833
                                                                                                                                                                                                                                                                                                                                                           893
                                                                                                                                                                                                                                                                                                                                                                                                              953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480 TTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGGGCCTTGGTTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGGCCCGAGAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTCCACAAGGAGGAATGCCGTCCTCGAGGAGGACTTCCTGCAGTTGTTCAACTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080 ACACTCCCACGCGCAAGCGCCCTCCGTGGACGCGATTCCCAAGTACCAGTACAAGGA
                                                                                  GACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCT
                                                                                                240 GACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCT
                                                                                                                                        CTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCA
                                                                                                                                                      CTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCA
                                                                                                                                                                                           AGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGT
                                                                                                                                                                                                                                               ATGTGGGCAGACATTTAGAGTCGCTTTTGGTGTTGAGATCCACAGAGACACACAAAGA
                                                                                                                                                                                                                                                               ATGTGGGCAGACATTTAGAGTCGCTTTTTGATGTTGAGATCCACATGAGAACACACAAAGA
                                                                                                                                                                                                                                                                                                      TICTITICACTIACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAA
                                                                                                                                                                                                                                                                                                                                                                         540 AAATCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATCACATGCGGACRCATAATGGCAAAATCGGGGGCCCAGAAGCAAACTGCAGCAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                               GGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCGCCGAGAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140 GAAGCCCACTCACTCCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCACCAGTGGTGTTT
                                                                                                                                                                                                             AGTGCGAACAGAACCTCCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200 GCACTCCAGGGTCC 1213
                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                      774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1494
  121
                                                       181
                                                                                  534
                                                                                                                                      594
                                                                                                                                                                                           654
                                                                                                                                                                                                                                                714
                                                                                                                                                                                                                                                                                                                                                           834
                                                                                                                                                                                                                                                                                                                                                                                                               894
                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                            474
                          $ 8 8
                                                                                                    유
                                                                                                                                     ò
                                                                                                                                                         g
                                                                                                                                                                                  ठे
                                                                                                                                                                                                                В
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원 수 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates; (ii) for screening of bioactive agent capable of bioactive agent capable of modulating the activity of CAP; (iv) for evaluating the effect of a candidate carcinoma drug; (v) for diagnosing carcinoma; (vi) for inhibiting the activity of CAP; (vii) for treating carcinoma; (vii) for neutralizing the effect of CAP; (vii) for treating carcinoma; (vii) for neutralizing the effect of CAP; (vii) for treating carcinoma; (vii) for neutralizing the effect of CAP; (vii) for determining Carcinoma Associated (CA) gene copy number. In addition, the CA genes are useful as DNA vaccines and the CAP are useful as markers of carcinoma including lymphoma. The present sequence is one such CA gene sequence. Note: This patent is an equivalent to basic patent US2002182586Al, for which no sequence data was published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        356 TCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCCTCTTAATGTACATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAGCCGGTCCGATG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAA 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Recombinant nucleic acid useful for diagnosis and treatment of carcinoma comprises a nucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              present invention relates to novel DNA and protein sequences which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence 5252 BP; 1507 A; 1101 C; 1177 G; 1467 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                            Cytostatic; carcinoma; lymphoma; cancer; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 1709; Opp; English.
                                                                  1440 TGGTCTTGCACTCCAGGGTCC 1460
                                                       TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                    BP
                                                                                                                                                                                                                                 Human mRNA sequence hCT1950762
                                                                                                                                                 ACN44987 standard; cDNA; 5252
                                                                                                                                                                                                                                                                                                                                                                      28-FEB-2003; 2003WO-US006235
                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2002; 2002US-00087192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 97.2
Matches 1180; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            (SAGR-) SAGRES DISCOVERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-328604/31.
                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                  WO2003073826-A2
                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                       18-NOV-2004
                                                                                                                                                                                                                                                                                                                                             12-SEP-2003
                                                   1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              415
                                                                                                                                                                              ACN44987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
```

ઠે ద ઠે g Š us-08-731-499-3.rng

```
The sequence is that of the CDNA sequence encoding ZABC-1 (zinc finger amplified in breast cancer). It maps to the core of the 20q13.2 amplicon and is overexpressed in primary tumours and breast cancer cell lines having 20q13.2 amplification. The sequence can be used as a probe for the detection of chromosomal abnormalities at 20q13. It and other sequences isolated from the 20q13 amplicon are consistently amplified in primary tumours. These sequences are useful as probes or as probe targets for monitoring the relative copy number of corresponding sequences from a biological sample such as tumour cells. The sequences can also be used in therapeutic applications for modulating the expression of the endogenous gene or the activity of the gene product. Examples of therapeutic approaches include antisense inhibition of gene expression, gene therapy, and monoclonal antibodies that specifically bind the gene product.
                                                                                                                                                                                                                                                                                              20q13 amplicon, chromosome 20; tumour; detection; ZABC-1 gene; chromosomal abnormalities; probe; gene therapy; antisemes inhibition; treatment; age-related macular degeneration; retinitis pigmentation; Leber's congenital amaurosis; zinc finger amplified in breast cancer; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and monoclonal antibodies that specifically bind the gene products. The products can also be used in the treatment of other diseases, e.g. agerelated macular degeneration, Leber's congenital amaurosis and retinitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New sequences from the 20q13 amplicon - used for detecting chromosomal abnormalities, particularly tumours, and for developing products for treating diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rommens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T; 0 U; 6 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kowbel
                                                                                                                                                                                                                              Homo sapiens 20g13 amplicon ZABC-1 cDNA seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1087.2; Pred. No. 0; 9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ļ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 925 A; 796 C; 758 G; 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Godfrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .3183
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 67-69; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product= "ZABC1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96US-00680395.
96US-00731499.
97US-00785532.
                                     DNA; 3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hwang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US012343
                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Collins CC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-110587/10.
                                     AAV09024 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; AAW23975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9802539-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-OCT-1996;
17-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-JAN-1998
                                                                                              AAV09024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gray
AAV09024

LUD AAV

AAV

AAV

AAV

AAV

AAV

AAV

Chr

Chr

CCC

CCC

AAV

CCC

CCC

AAV

CCC

AAV

CCC

AAV

CCC

AAV

CCC

AAV

CCC

CCC

AAV

CCC

CC
```

<u>ب</u>

```
1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1458
                                                                                           558
                                                                                                                                            618
                                                                                                                                                                                                                                                                                        798
                                                                                                                                                                                                                                                                                                                                                                                      918
                                                                                                                                                                                                                                                                                                                                                                                                                                     978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     957
                                                                     177
                                                                                                                   237
                                                                                                                                                                   297
                                                                                                                                                                                           678
                                                                                                                                                                                                                357
                                                                                                                                                                                                                                        738
                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                               477
                                                                                                                                                                                                                                                                                                                                      858
                                                                                                                                                                                                                                                                                                                                                              537
                                                                                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                                                                                                           657
             AAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGCAGGCCTCTCGCAAGAGAAAGTGCAAACACTCCCCACGGGGAAGCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGACGCGGATCCCCAGTTACCCAGTAGCAAGGAGAAGCCCCACTCCTCCGAGTGC
                                                                      GCGTATATGCCCTTGGATTGCATCTTCTGCAGCCAGACCTTCACACATTCACAAGACCTT
                                                                                                                                                                                           GAAGCAGAGTATCTCCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGAA
                                                                                                                                                                                                         GAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGAA
                                                                                                                                                                                                                                                       TTTGATGTTGAGATCCCACATGAGAACACACAAAAATTCTTTCACTTACGGGTGTAACATG
                                                                                                                                                                                                                                                                                                                                                   AAATCGGGGCCCAGAAGCAAACTGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGICGICCAGGIGCACGCGGGCCGAGAGCATCTCCTCCTTGCAAAATCTGCATGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGTCGTCCAGGTGCACGCGGGCGAGCATCTCCTCCTTACAAATCTGCATGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGGCTTCCTATTTCCAAATAAAGAAGTCTAATTGAGCACCGCAAGGTGCACACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAACTGCTTTCGGTACCAGCAGCGCGCAGACACTCTCCACAAGGAGGAATGCCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAACGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rcsasscancercescasificateaactrsascaaaarcrcaccersaaacsss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGCTACCAAAGGAAAAGTTGCCATTTGCCAAGAAGTGAAGGAATCGGGGCAAGAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTGCAGGCCTCTCGCAAGAGAAAAAGAGAAGTGCAAACACTCCCACGGCGCAAGCGCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAGATGGA-GATGCCTTGTCAATGA
                                               GGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACTTCAGAAGACCTT
                                                                                                                                            AATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGTT
                                                                                                                                                         AAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCCAGACATTTAGAGTCGCT
                                                                                                                                                                                                                                                                                                                TTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACATG
                                                                                                                                                                                                                                                                                                                                      TGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAATGGC
                                                                                                                                                                                                                                                                                                                                                                                      <u>AAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAAC</u>
                                                                                                                                                                                                                                                                                                                                                                                                              538
                                                                                                                                                                                                                                                                                                                                                                                                                                                             598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     928
                                                                                                                    178
                                                                                                                                            559
                                                                                                                                                                   238
                                                                                                                                                                                                                   298
                                                                                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                                                              478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1018
380
                                              439
                                                                                              499
                                                                                                                                                                                           619
                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                         739
                                                                                                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                      859
                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1399
                                                                                                                 g
                                                                                                                                                                g
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                             Š
                                                                   g
                                                                                           Š
                                                                                                                                           8
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
```

1137

1078

379

Length 3183;

DB 2; 38;

72.1%; 95.7%;

Conservative

Best Local Similarity Matches 1138; Conser

Query Match

320

g ò

4;

Indels

471

352

411

10189

10249

591

10309

651

708

10369

768

828

10549

888

10606

948

1188

1248

```
GATGTGTGGGCAGACATTCCCAGTGGCTTTTGATGTTGAGAGCCACATGAAGAGCAT 10429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10430 AAGGACTCCTTCACGTATGGGTGCAGCATGTGCGGGAGGAGATTCAAGGAGCCGTGGTTC 10489
                                                                                                                                                                                                                                                                                                                        9950 TCAGCAGATAGTGGATTACCCATCCTGTCAGACCCTGAAGTGGTTGGCAGCATGCCGACC 10009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10907 CAGGAAGAGCTGAAAGAGTCAGGCCAAGAAGGAAGCACAGACAATGACGACTCATGCTCA 10966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crcarrandecacaccanderrencecenangaancrereceengrecendendenacerrece 10726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccreargaccacceaeaeaacccacercceeaeeaaeaeaerrecrecaerricaac 10786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rrgagacccagarcaacrgcaagragracagrgaagcccargaccrgcaraccrcaagrr 10846
                                                                                                                                                          CTCTTAGAGGTTCTGAGTGGTGATATCTCACAGGGGCCTTATTCTAACTGCAGAGATCC 9949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9839 AATATACTCGTCCCTCTGACCTT-----AGAGGTGCTCTGATTTTGACACCCAGGG 9889
                                                                                                                                                                                                                                         CCAACGGAACTTTGAGATTATATGCAATCGA-----AAGTGACAGGAAACATGCCAACT
                                                                                                                                                                                                                                                                                                                                                                                                       CAATCCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10190 CAGGTCTTCTCTCAGGCGGAGGATCTCAGTCAGCACGTGCTGCTGCAGCACCGGCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crcrisciaeccascrisciaectrascasasces de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra del la contra de la contra de la contra de la contra del la contra de la contra del 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cregadeceacadeaceacearregadadaderegedadaceeeeagaderregadererer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGAAGAACCACATGCGGACACACAAATGGCAAGTCTGGCACCAGGAGCAAGCTTCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arcrecaegeceracaagarergeargerergegeerreereeraarraagage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u> ariegaicericiantericres centala acidecice rice actecente con contra a rice actecente contra a rice a rice actecente contra a rice a r</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAAAAATCACATGCGGACRCATAATGGCAAAATCGGGGGCCCAGAAGCAAACTGCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCGGCCGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C---AAGAAGTGAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAATTTAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           472
                                                                                                                                                              9890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1249
                                                                                   242
                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                       353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1189
                                                                                                                                                 셤
                                                                                                                                                                                                                ⋧
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9674 CACATTGCCGGGATCAACGTCTTGCTCAACTGAGCCACTCACCAGTGGAGATGGACAGAG 9733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates; (ii) for screening of bioactive agent capable of bioactive agent capable of bioactive agent capable of modulating the activity of CAP; (ii) for screening of a bioactive agent capable of modulating the activity of CAP; (iv) for evaluating the effect of a candidate carcinoma drug; (v) for diagnosing carcinoma; (vii) for neutralizing the activity of CAP; (vii) for treating carcinoma; (vii) for neutralizing the activity of CAP; (vii) for determing carcinoma a propensity to carcinoma; and (xi) for determining carcinoma as Diochip; (x) for determining carcinoma and the CAP are useful as markers of carcinoma including lymphoma. The present sequence is one such CA coding sequence. Note: This patent is an equivalent to basic patent US2002182586AI, for which no sequence data was published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present invention relates to novel DNA and protein sequences which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9794 TIGIGCAAAGAGCCA---TCTCCAICACTGAGCTCCCCAAGCTCC------GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGGTTTTTGGAACCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9734 crerrecerecreardecedacarereacreacedecrecedecedecridarecerrer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGTGGAAAGAACCAGTGACATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 26345 BP; 6286 A; 5855 C; 6718 G; 7486 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 11; Length 26345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88;
    GGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recombinant nucleic acid useful for diagnosis and treatment of comprises a nucleotide sequence.
                                             GGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 1.2e-174;
3; Mismatches 448; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytostatic; carcinoma; lymphoma; cancer; murine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 573.6;
Pred. No. 1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; SEQ ID NO 1705; Opp; English
                                                                                                                                                                                                                                                                                  ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse genomic sequence mCG6549
                                                                                                                                                                                                                                                                              ACN44984 standard; DNA; 26345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-FEB-2003; 2003WO-US006235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2002; 2002US-00087192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 38.1%;
Best Local Similarity 65.6%;
Matches 1028; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SAGR-) SAGRES DISCOVERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-328604/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2003073826-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                            18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ě
1459
                                                                          1138
                                                                                                                                                                                                                                                                                                                                                             ACN44984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Morris
                                                                                                                                                                                               RESULT 11
                                                                                                                                                                                                                                ACM4984

110

ACM4984

110

ACM4984

AC
    ઠે
                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
g
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                 ď
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                    ò
                                                                                       g
                                                                                                                 ò
                                                                                                                                         셤
                                                                                                                                                                                   g
                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                    11146
                                                                                                                                                         ACGCACTGTTCTGAGTGCAGCAAAGCCTTCAGGACATACCACCAGCTCGTGCACCTGC 11206
                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates; (ii) for screening of bioactive agent capable of bioactive agent capable of bioactive agent capable of medulating the activity of CAP; (iv) for evaluating the effect of a candidate carcinoma drug; (v) for diagnosing carcinoma; (vi) for inhibiting the activity of CAP; (vii) for treating carcinoma; (vii) for neutralizing the activity of CAP; (vii) for treating determining carcinoma or a propensity to carcinoma; and (xi) for determining carcinoma associated (CA) gene copy number. In addition, the A genes are useful as DNA vaccines and the CAP are useful as markers of carcinoma including lymphoma. The present sequence is one such CA gene sequence. Note: This patent is an equivalent to basic patent US2002182586A1, for which no sequence data was published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present invention relates to novel DNA and protein sequences which
                                                           11027 AAAACAAGTAAAAGCAGTTGTCCAAGGTCTCTCCCAAGACAAAGAGAAAGCCTAGACATGCT
                     .0967 GAGAAAGAGGAACTAGGGAAATATGGGTTGGGGGTAAGGCGGAAGGGTCTGGAAAGTCC
                                                                                                           ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCC
                                                                                            CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCCC
                                              Recombinant nucleic acid useful for diagnosis and treatment of comprises a nucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3016 BP; 771 A; 838 C; 847 G; 560 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                          ġ₿.
                                                                                                                                                                                                                                                                                                                                                                          Cytostatic; carcinoma; lymphoma; cancer; murine; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 1706; Opp; English.
                                                                                                                                                                                                                                                                            ACN44985 standard; cDNA; 3016 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2002; 2002US-00087192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-FEB-2003; 2003WO-US006235
                                                                                                                                                                                                                                                                                                                                                  Mouse mRNA sequence mCT6076
                                                                                                                                                                                                                                                                                                                          18-NOV-2004 (first entry)
GAGAAGGAGCTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SAGR-) SAGRES DISCOVERY
                                                                                                                                                                                                                 AGGCTGC 11213
                                                                                                                                                                                           AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-328604/31,
                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003073826-A2.
                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                              12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MO
                                                                                            1381
                                                                                                                                           1441
                                                                                                                                                                                          1501
                                              1322
                                                                                                                                                                  11147
                                                                                                                    11087
                                                                                                                                                                                                                11207
                                                                                                                                                                                                                                                                                                    ACN44985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Morris
                                                                                                                                                                                                                                                                ACN44985
                                                                                                                                                                                                                                                                            a
                                                                  g
                                                                                                               8
                                                                                                                                                            Ω
                                            ઠે
                                                                                      ેં
                                                                                                                                         ò
                                                                                                                                                                                       ઠે
                                                                                                                                                                                                              d
```

35.6%; Score 537; DB 11; Length 3016;

Query Match

```
1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   958 TCATGCTCAGAGAAAGAGGAACTAGGGGAAATATGGGTTGGGGGTAAGGCGGAAGGGTCT 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------AAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGC 1371
                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 957
                                                                                                     402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            777
                                                                                                                                                                                                                                           462
                                                                                                                                                                                                                                                                                                            Gecreccadardeaderida rearecteres centala a decreccada de conservada e de conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657
                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATAAAGCTCTGGAGCCAACAGAGCCAGCATTGGAGAAGAGTGGCGAAGACCCCGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTTCAACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCAGCTTGACCCGTTCACCACCTACCAGGCATGGCAGTTGGCTACCAAAGGAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATGCCGACCCAGTCCCTCCTCGTACATGGACGGGCCGGAAGTCCTCAGCAGCTCTTA
                                                                                                                                                                                                                                              GCCAGTCCGATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAGCTGCTCAGGAGAAGAGCATGGCCGTGGCAGAGGGCCACATGCCCCTGGATTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ceacccaccercreceaeccaecrerererereresaeseccaaeraceraaerecerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATAAAAGTCCAACGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAACACACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTTGGTTTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      crrcagcaaggcarggag---agrccagrcaccarcaargaagrggrccagcaggcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCATTTGCC----AAGAAGTGAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGAT
                                                                                                     344 ATGCCAACTCAATCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                    AGCTACACAAAAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCTGCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTAGCTGTGAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGAGAGCATCTCCTCCTTGCAAAATCTGCATGGTTTGTGGCTTTCCTATTTCCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                    55;
                                Indels
   Pred. No. 2.6e-163;
3; Mismatches 324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGAGTTCCGAGAAGGAGCTTGGAG-
al Similarity 68.6%;
834; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1322
                                                                                                                                                                                                                                              403
                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
   Local
   Best Loc
Matches
```

```
2000US-0229344P
2000US-0229345P
2000US-0229513P
2000US-0239613P
2000US-0231438P
2000US-0231438P
2000US-0231243P
2000US-0231244P
2000US-0231244P
2000US-0231244P
                                                                                                                                                                                                                                                                                                                                               2000US-0232399P.
2000US-023240DP.
2000US-0233063P.
2000US-0233064P.
2000US-0233065P.
2000US-0233065P.
2000US-0234223P.
                                                                                                                                                                                                                                                                 2000US-0232081P.
2000US-0231968P.
2000US-0232397P.
2000US-0232398P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0239935P.
2000US-0239937P.
2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0241786P.
2000US-0241787P.
2000US-0241808P.
2000US-0241809P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0241826P.
2000US-0244617P.
2000US-0246474P.
2000US-0246475P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0246523P.
2000US-0246524P.
2000US-0246525P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0246609P.
2000US-0246610P.
2000US-0246611P.
2000US-0246613P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0249210P.
2000US-0249211P.
2000US-0249212P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0235834P.
2000US-0235836P.
2000US-0236327P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0234997P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0246476P.
2000US-0246477P.
2000US-0246478P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0235484P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        000US-0236802P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0237037P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0237039P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0236367P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0236369P
011-SEP-2000)
1-SEP-2000)
1-SEP-2000)
05-SEP-2000)
05-SEP-2000)
06-SEP-2000)
06-SEP-2000)
08-SEP-2000)
08-SEP-2000)
08-SEP-2000)
08-SEP-2000)
08-SEP-2000)
08-SEP-2000)
14-SEP-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-SEP-2000;

02-OCT-2000;

02-OCT-2000;

03-OCT-2000;

13-OCT-2000;

13-OCT-2000;

20-OCT-2000;

20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-NOV-2000;
    1431
                                                                                                                    1018 GGAAAGTCCAAAACAAGTAAAAGCAGTTGTCCAGGTCTCTCCCAAGACAAAGAGAAAGCCT 1077
                                        1372 AAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human, immune, haematopoietic, immune/haematopoietic antigen, cancer; cytostatic; gene therapy; vaccine; metastasis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immune/haematopoietic antigen genomic sequence SEQ ID NO:35907
                                                                                                                                                                                                      1492 TIGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                          1198 crecacreaaeearec 1213
                                                                                                                                                                                                                                                                                                                                             AAK81095 standard; DNA; 566 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0179065P.
2000US-0186628P.
2000US-0186658P.
2000US-0189674P.
2000US-0198974P.
2000US-0198974P.
2000US-0198974P.
2000US-0198974P.
2000US-02198977P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-021647P.
2000US-022647P.
2000US-022647P.
2000US-022647P.
2000US-022647P.
2000US-022647P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
2000US-022547P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0227009P.
2000US-0228924P.
2000US-0229287P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JAN-2001; 2001WO-US001354
                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUL-2000;
11-JUL-2000;
11-JUL-2000;
26-JUL-2000;
26-JUL-2000;
14-AUG-2000;
18-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-AUG-2000;
30-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-2000;
16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                             07-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-AUG-2001
                                                                              1078
                                                                                                                                                                                                                                                                                                                                                                                     AAK81095
                                                                                                                                                                                                                                                                                                       RESULT 13
                                                                                                                                                                                                                                                                                                                        AAK AAK WA AAK W
                                   ò
                                                                 පි
                                                                                                       8
                                                                                                                                                     쉽
                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                 뭐
```

419 909 479

789 359

AGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGG

AGAGTCGCTTTTGATGTTCACATCCACATGAGAACACACAAAGATTCTTTCACTTACGGG

730 300

ò

g

240 CCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTT

TGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACR

CATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAAGTAGTCAGCA

CATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCA

850

420

360

290

ઠે g ò 셤 ð g ò

180 CTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCT

910

910

ò

g

696

539

480 ACGATCAACGAGGTCGTCCAGGTGCACGCGGGCGAGGAGCATCTCCTCTCTTACAAAATC

AAK81093 standard; DNA; 14906

RESULT 14 AAK81093 AAK81093;

910 ACGATCAACGAGGTCCTAGGTGCACGCGGCCGAGAGAGCATCTCCTCTCTTGCAAAATC

```
AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) acmino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polymucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) polymucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proceins and polymucleotides may be used to produce the secreted (I), by inserting the diagnose and treat immune/haematopoietic-related diseases, especially cancer metastases of haematopoietic-derived cells. AAK64703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK54942 to AAK54950 and AAM82169 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 35907; 3071pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seguence 566 BP; 170 A; 127 C; 134 G; 135 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rosen CA, Barash SC, Ruben SM;
                                                                                                                                                                                                                                                                                                                                          2000US-0251868P.
2000US-0251869P.
2000US-0251989P.
2000US-0251990P.
                                                                                                                     2000US-0249245P.
                                                                                                                                                                     2000US-0249297P.
2000US-0249299P.
2000US-0249300P.
                                                                                                                                                                                                                                      2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
                                                                                                                                                                                                                                                                                          2000US-0256719P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34.7%;
96.1%;
                                                               2000US-0249217P
2000US-0249218P
                                                                                                   2000US-0249244P
                                                                                                                                                   2000US-0249265P
                                                                                                                                                                                                                        2000US-0250160P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME SCI INC.
                                                   2000US-0249216P
                                                                                                                                                                                                                                                                                                                            2000US-0251856P
                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-483426/52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                               17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                      01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
                                                                                                 17-NOV-2000;
17-NOV-2000;
                                                                                                                                   17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                     17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                      17-NOV-2000;
01-DEC-2000;
                                                                                                                                                                                                                                                                                          05-DEC-2000;
                                                                                                                                                                                                                                                                                                                          08-DEC-2000;
               17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                          06-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
```

```
Human, immune; haematopoietic; immune/haematopoietic antigen; cancer; cytostatic; gene therapy; vaccine; metastasis; ds.
                                                                    Human immune/haematopoietic antigen genomic sequence SEQ ID NO:35905
                                                                                                                                                                                                                                                                                                              2000US-0205515P.
2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                       2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
                                                                                                                                                                                                                                                                           2000US-0189874P.
2000US-0190076P.
2000US-0198123P.
                                                                                                                                                                                                                                                                                                                                                              2000US-0216647P.
2000US-0216880P.
                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0217496P
                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0220964P
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0224518P
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0224519P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0225213P
                                                                                                                                                                                                     17-JAN-2001; 2001WO-US001354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0225214P
                                            (first entry)
                                                                                                                                                      WO200157182-A2.
                                                                                                                                                                                                                                                 24-FEB-2000; 2
02-MAR-2000; 2
16-MAR-2000; 2
17-MAR-2000; 2
18-APR-2000; 2
                                                                                                                                                                                                                                                                                                                        07-JUN-2000;
28-JUN-2000;
30-JUN-2000;
07-JUL-2000;
07-JUL-2000;
                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2000;
                                            07-NOV-2001
489
                                                                                                                                                                                                                                                                                                                                                                                                              549
                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                                                                                                                                                                                                                                                                                                                                             609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                      53
                                                                                                                                                                                                                                                                                                                                                                                                             CGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCCAGACCTTCACACATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTT
                                                                                                                                                                                                                                                                                                                                                               TGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAAAAAATGTCAATC
                                                                                                                                                                                                                                                                                                                                                                                      rerchargahageaccecretrerrecarrecarecacacahahahaharere-are
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTT
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                               Score 523.2; DB 4; Length 566; Pred. No. 2.8e-159;
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                         20;
                                                                                                                                                                                                                                                                                                                                      1; Mismatches
```

Matches 545; Conservative

430 ч 490

d

550 120

9

g ò

ò

```
2000US - 0235484P
2000US - 0235834P
2000US - 02353327P
2000US - 0235367P
2000US - 0235367P
2000US - 0235368P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0236370P.
2000US-0236802P.
2000US-0237037P.
2000US-0237038P.
2000US-0237039P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0239935P.
2000US-0239937P.
2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                                                                                        2000US-0229287P.
2000US-0229343P.
2000US-0229344P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0232399P.
2000US-0232400P.
2000US-0232401P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0241786P.
2000US-0241787P.
2000US-0241808P.
2000US-0241809P.
                                                                                                                         2000US-0225759P.
2000US-0226279P.
2000US-0226681P.
                                                                                                                                                                               2000US-0226868P.
2000US-0227182P.
2000US-0227009P.
                                                                                                                                                                                                                                         2000US-0228924P
                                                                                                                                                                                                                                                                                                                                                                    2000US-0230437P
                                                                                                                                                                                                                                                                                                                                                                                       2000US-0230438P.
2000US-0231242P.
2000US-0231243P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0231414P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0234274P.
2000US-0234997P.
2000US-0234998P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0232398P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0234223P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0241826P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-NOV-2000; 2000US-0246523P
08-NOV-2000; 2000US-0246524P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0232397P
                                                14-AUG-2000; 214-AUG-2000; 214-AUG-2000; 214-AUG-2000; 22-AUG-2000; 22-AUG-2000; 23-AUG-2000; 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
13-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
80-OCT-2000;
80-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-SEP-2000;
27-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                       01-SEP-2000
05-SEP-2000
05-SEP-2000
06-SEP-2000
06-SEP-2000
06-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
08-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000;
25-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-SEP-2000
```

2000US-0246611P. 2000US-0246613P. 2000US-0249207P. 2000US-0249208P. 2000US-0249209P. 2000US-0249211P. 2000US-0249211P. 2000US-0249213P. 2000US-0249213P. 2000US-0249214P. 2000US-0249216P. 2000US-0249216P. 2000US-0249244P. 2000US-0249245P. 2000US-0249264P. 2000US-0249265P. 2000US-0249297P. 2000US-0249299P. 2000US-0249300P. 2000US-0250160P. 2000US-0250391P. 2000US-0251030P. 2000US-0251988P 2000US-0256719P 2000US-0251479P 2000US-0251856P 2000US-0251868P 2000US-0251869P (HUMA-) HUMAN GENOME SCI INC 2001US-0259678P 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 08-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 01-DEC-2000; 01-DEC-2000; 05-DEC-2000; 05-DEC-2000; 06-DEC-2000; 08-DEC-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000; 17-NOV-2000;

Ruben SM Barash SC, Rosen CA,

WPI; 2001-483426/52.

Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.

Disclosure; SEQ ID NO 35905; 3071pp + Sequence Listing; English.

AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)

amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
activity, and can be used in gene therapy and vaccine production. (I)
proteins and polynucleotides may be used in the prevention, diagnosis and
treatment of diseases associated with inappropriate (I) expression. For
example, they may be used to treat disorders associated with decreased
expression by rectifying mutations or deletions in a patient's genome
that affect the activity of (I) by expressing inactive proteins or to
supplement the patients own production of (I). Additionally, (I)
supplement the patients own production of (I). Additionally, (I)
cupled acids into a host cell and culturing the cell to express the
nucleic acids into a host cell and culturing the used to prevent,
diagnose and treat immune/haematopoietic-related diseases, especially
cancers and cancer metaeteses of haematopoietic-derived cells. AKK64703
to AAK87694 represent human immune/haematopoietic antigen genomic
sequences from the present invention. AAK849912 to AAK87950 and AAM82169
represent sequences used in the exemplification of the present invention

Sequence 14906 BP; 3959 A; 3088 C; 3333 G; 4526 T; 0 U; 0 Other;

```
ö
                                                                                                        1294
                                                                                                                                                           ATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGC 1354
                                                                                                                                                                                                               1355 AAGAGAAAGAGAAAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCA 1414
                                                                                                                                                                                                                                                                 1415 AGTTACCCAGTAGCAAGGAAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAA 1474
                                                                                                                                                                                                                                      240
                                                                                                                      121 ATTCGAGTTCCGAGAAGGAGCTTGGAGAAAAAAAGGGCAGTTGTGCAGCTCTCGC 180
                                                                                                                                                                                                                                                                                241 AGTTACCCAGTAGCAAGAGAAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAA 300
                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human genome-derived single exon nucleic acid probes useful for hum: gene expression analysis, for identifying or characterizing alternative splicing events, for assessing genomic alterations or as tools for
                                                                                                                                                                                                                            181 AAGAGAAAGAGAAGTGCAAAACACTCCCACGGCGAAGCGCCCTCCGTGGGACGCGGATCCCA
                                                                                                        1235 WAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACG
                                                      1175 GCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAA
                                                                             1 GCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTGGCAGCTGGCTACCAAAGGAA
                             0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; probe; as; gene expression; single exon probe; microarray; alternative splicing event; genomic alteration.
    DB 4; Length 14906;
                            Indels
                           2,
                                                                                                                                                                                                                                                                                                                    CCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                    CCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 333
  Score 324.2; DB Pred. No. 2e-93; 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human genome derived single exon probe #9711.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hanzel DK;
  21.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-APR-2002; 2002US-00029386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-APR-2002; 2002US-00029386
                                                                                                                                                                                                                                                                                                                                                                                                              ACH76516 standard; DNA; 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JUL-2004 (first entry)
Query Match
Best Local Similarity 97.9°
Matches 326; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-119264/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (PENN/) PENN S G.
(RANK/) RANK D R.
(HANZ/) HANZEL D K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Penn SG, Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     surveying tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003194704-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                    1475 (
                                                                                                                                                           1295
                                                                                                                                                                                                                                                                                                                                                                                                                                        ACH76516;
                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                         g
                                                                                                                                                     8 8
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                   Ωp
                                                                                                                                                                                                                                                                                                           ò
                                                                                                      ó
                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                       셤
```

The invention relates to a nucleic acid probe for measuring human gene expression, comprising any of the 27,400 fully defined nucleotide sequences in the specification, or their complements or fragments, and encoding at least 8 amino acids of any of the 6888 amino acid sequences fully defined in the specification. The probe is a single exon probe that hybridises under high stringency conditions to a nucleic acid molecule

Claim 15; SEQ ID NO 9711; 80pp; English.

```
addressable set of single exon nucleic acid probes for measuring human can addressable set of single exon nucleic acid probes for measuring human conservession (comprising a plurality of single exon nucleic acid probes cited above, where each of the plurality of probes is separately probes cited above, where each of the plurality of probes is separately and addressably isolatable or amplifiable from the plurality), a single exon microarray for measuring human gene expression, a wector comprising the single exon probe cited above, an ORF-encoded peptide comprising the single exon probe cited above, an ORF-encoded peptide comprising the single exon contiguous amino acids of any of the above-mantioned amino acid solated antibody that binds specifically to a peptide cited above, and solated antibody that binds specifically to a peptide cited above, methods of selling and/or licensing single exon probes or microarrays to a customer desiring to measure gene expression a method of providing human gene expression data by subscription, and a computer-readable storage medium which contains a database having a plurality of records (each record including data on the expression of a single exon probe cited above. The probe, methods and apparatus are useful in gene expression analysis. The probes may be used as tools for surveying tissues to detect the presence of expressed messages that contain their specific exon, or in constructing sonome-derived single exon microarrays. In addition, the probes are used in identifying and characterising contains in the genomic locus that includes their exon, in assessing the above. In expressing the ORF-encoded peptide. The present sequence is a human contain the genomic alterations, in priming the synthesis of nucleic acids, or in expressing the ORF-encoded peptide. The present sequence is a human confidence of the invention. Note: The sequence data for this part methods and problement with the problement of the printed specification, but was obtained to encount of the proper peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    470 GCCTCTCGCAAGAGAAAAGAGAAGTGCAAACACTCCCACGGGGGAAGCGCCCTCCGTGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1286 ACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1346 GCCTCTCGCAAGAGAAAAGAGAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 12; Length 530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 530 BP; 97 A; 160 C; 156 G; 117 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1466 CTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350 CTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             segdata.uspto.gov/sequence.html?DocID=20030194704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 14.3%; Score 215.6; DB 13
Best Local Similarity 98.2%; Pred. No. 6.1e-59;
Matches 218; Conservative 0; Mismatches 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Search completed: June 28, 2005, 19:33:39 Job time : 537.33 sec8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similaria,
Matches 218; Conservative
                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
/note= "cDNA clone cc49 of 6-7kb transcript with homology to C2H2 zinc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    finger genes"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: -.1507
LOCATION: 1..1507
OTHER INFORMATION:
OTHER INFORMATION:
  4444
6664
6464
64664
64664
64664
64664
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
6464
64
Sequence 3, Appli
Sequence 3, Appli
Sequence 9, Appli
Sequence 12604, A
Sequence 16004, A
Sequence 3, Appli
Sequence 862, App
Sequence 10, Appl
Sequence 10, Appl
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34700, A
151880,
11828, A
61, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14, Appl
27493, A
92521, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     413, App
2645, Ap
493, App
14387, A
12235, A
                                                                                                                                               June 28, 2005, 18:22:52; Search time 171.067 Seconds (without alignments) 1414.621 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4961, Ap
Sequence 1038, Ap
Sequence 16703, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                     1 GCAGGTTGCTGGGATTGACT......GGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3
Sequence 1
Sequence 1
Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1
Sequence 2
Sequence 3
Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence Sequence S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Issued Patents NA:*

1. /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2. /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3. /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

5. /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

5. /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

5. /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                    5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-680-395-3

US-08-892-695-3

US-08-892-695-3

US-09-949-016-12604

US-09-949-016-16004

US-09-949-016-16004

US-09-949-016-16004

US-09-949-016-151879

US-09-949-016-151879

US-09-949-016-151880

US-09-949-016-151828

US-09-949-016-1038

US-09-949-016-1038

US-09-949-016-1038

US-09-949-016-1038

US-09-949-016-27493

US-09-949-016-27493

US-09-949-016-27493

US-09-949-016-2783

                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                  1202784 segs, 818138359 residues
                    GenCore version (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                          nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                         US-08-731-499-3
1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1507
1507
10365
20022
20023
5632
5632
5632
5632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
601
601
298
2765
2765
2799
12323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11304.8
113387.2
113387.2
11337.2
11337.2
1108.6
550.8
550.8
655.8
668.8
668.8
                                                                                                          OM nucleic
                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
No.
```

```
115565, A
1386, Ap
15505, A
725, App
1406, App
892, App
23, App
1710, Ap
                                                                                                                                                                                                                                                                                                                                           us-08-680-385-3

s Sequence 3, Application US/08680395

s Patent No. 5892010

GENERAL INFORMATION:

APPLICANT: Gray, Joe W.

APPLICANT: Collins, Colin

APPLICANT: Godfery, Tony

APPLICANT: Rowbel, David

APPLICANT: Rommens, Johanna

ITILE OF INVENTION: Genes from the 20q13 Amplicon and Their

ITILE OF INVENTION: Genes from the 20q13 Amplicon and Their

TITLE OF INVENTION: Genes from the 20q13 Amplicon and Their

STREET: Townsend and Townsend and Crew LLP

STREET: Townsend and Townsend and Crew LLP

STREET: Canifornia

COUNTRY: San Francisco

STATE: California

COUNTRY: USA
                                                  Sequence
Sequence
Sequence
Sequence
                                                                                                                    Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                          Sequence
Sequence
Sequence
                     Sequence
                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 9411-3834

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: BAPC compatible
COMPUTER: BAPC compatible
COMPUTER: APERICATION DATA:
APPLICATION NUMBER: US/08/680,395
FILING DATE: 15-011-1996
CLASSIFICATION: 435
ATTORNEX/AGENT INFORMATION:
                                                              US-09-016-434-725
US-09-016-434-725
US-09-016-434-1406
US-09-016-434-23
US-09-949-016-1710
US-09-949-016-12231
US-09-949-016-12231
US-09-949-016-12452
US-09-949-016-12452
US-09-016-12452
US-09-016-12531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: BASTAN, KEVIN L.
REGISTRATION NUMBER: 34,774
REPERENCE/DOCKET NUMBER: 023070-068900US
TELEPHONE: (415) 576-0200
TELEPHONE: (415) 576-0300
INPORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LENGTH: 1507 base pairs
 15632
1563
22752
2824
831
656
656
605
2402
2407
30867
30867
30867
2552
2552
2552
2553
1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
```

q

8

ያ ያ

d ò 유 ઠે g ò

ò

```
1260
                                                                                                                                                                                                                                                                       1320
                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                     1440
             1080
                                                                                                                                           1200
                                                                                                                                                                       1200
                                                                                                                                                                                                                          GAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCCAAGTTACCCCAGTAGCAAGGAGAAGCCC
                                 CAAGGAGGAATGCCGTCCTCGAGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA
                                                                                                                                                                                                                                                                                         GAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGGTTGGA
                                                                                                                                                                                                                                                                                                                                                         GAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAAGTGCAAACACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                       TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACC
                                                                                                                                                                         rereaccergaaacgggaagaagcergreagargearceercageregareegrreace
                                                                                                                                                                                                          ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAG
                                                                                                                                                                                                                                                                         GAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INCIGATION

GENERAL INCIGATION

APPLICANT: Gray, Joe W

APPLICANT: Collins, Collin

APPLICANT: Godfrey, Tony

APPLICANT: Rowel, David

APPLICANT: Kownens, Johanna

TITLE OF INVENTION: GENES FROM THE 20Q13 AMPLICON AND THEIR USES

FILE REFERENCE: 2500.124U3

CURRENT FILING DATE: 1997-07-15

EARLIER APPLICATION NUMBER: 08/785,532

EARLIER PILION DATE: 1997-01-17

EARLIER PILION DATE: 1997-01-16

EARLIER FILING DATE: 1997-01-16

EARLIER FILING DATE: 1996-10-16

EARLIER FILING DATE: 1996-07-15

NUMBER: OF SEQ ID NOS: 59

SEQ ID NO 3

SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Artificial Sequence: cc49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 3, Application US/08892695A; Patent No. 6808878; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ̈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: modified_base
LOCATION: (447)
CTHER INFORMATION: N is A,
US-08-892-695-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501 AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-892-695-3
                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                             1081
                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                             1081
                                                                                                                                            1141
                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                      1321
               1021
                                                                                                        g
                                                                                                                                                               ď
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                    g
                                                                      ઠે
                                                                                                                                 Š
                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                        120
                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                            9
                                                                                                                          9
                                                                                                                                                                            CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGCTCCGTGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACAGAGAACACACAAAAAATTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGCGGACRCATAATGGCAAAATCGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGT
                                                                                                                                                                                                                          TITIGIGGAAAGAACCAGIGACACCATCACIGAGCITCCIAAAAGITCGAAGAAGITAGAG
                                                                                                                                                                                                                                          TTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                        GACTATACACTTTTGGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                          GACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                 ACTGTTAGAGGGTGAGTGAGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                  AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCAGTICTICGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAGTCAAGTGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAGAACCTCCCAAGGAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A TGCGGACRCATAA TGGCAAA TCGGGGGCCAGAAGCAAAACTGCAGCAAGGCTTGGAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                            CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG
                                                                                                                                                                                                                                                                                                                                                       ACTGTTAGAGGGTGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCCAGACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccaecaerrerresegrigaascasastarereagreceserrearaaasreaastesa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTC
                                                                                            GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCCATTCAATGGAGACAAAGAG
                                                               Gaps
                                                            ö
                               DB 2; Length 1507;
                                                              0; Indels
                            Query Match
99.9%; Score 1504.8;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1507; Conservative 0; Mismatches
US-08-680-395-3
                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                            Н
                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                            61
                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
```

g

ò g ે

g

g

ò 중 유 g ò g

õ

8 8

8

8 6 6 6

a & g Page 3

	Oy 1081 CAAGGAGAATGCCGTCCTCGAGGAGACTTCCTGCAGTTCAACTTGAGACCAAAA 1140	Qy 1141 TCTCACCCTGAAAGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCGTTCACC 1200	1201 ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAWWGTTGCCATTTGCCAAGAAGTGAGG 	1261 GAATTGGGGCAAGAGCACCACCACAACGACTTCGAGAAGGACTTGGA 	1321 GAAACAATTAGTSCAGGCCTCTCGCAAGAGAAGAGAAGTSCAAACACTCC 	1381 CACGGCGAAGCGCCTCCGTGGACGCGGATTCCCAAGTTACCCAGTAGCAAGAGAAGCCC 	1441 ACTCACTG	. Qy 1501 AGGTCC 1507 Db 1501 AGGTCC 1507	RESULT 3 US-08-892-695-9 ; Sequence 9, Application US/08892695A	; Pacent No. 6808878 ; GENERAL INFORMATION: ; APPLICANT: Gray, Joe W ; APPLICANT: Colling, Collin		; TITLE OF INVENTION: GENES FROM THE ZUGIS AMPLICON AND THEIR USES; FILE REPERBACE: 2500.124US3; CURRENT APPLICATION NUMBER: US/08/892,695A; CURRENT FILIAG DATE: 1997-07-15	; EAKLIER APPLICATION NUMBER: 08/731, 5 EAKLIER PILING DATE: 1997-01-17; EAKLIER PILING DATE: 1996-10-16; EAKLIER FILING DATE: 1996-10-16	; EACLIER APPLIATION NUMBER: U8/680,395; EACLIER FILING DATE: 1996-07-15; NUMBER OF SEQ ID NOS: 59	; SEQ ID NO 9 ; LENGTH: 10365 ; TYPE: DNA ; ORGANISM: Artificial Sequence	; FARIANATION: Description of Artificial Sequence:Genomic ; OTHER INFORMATION: Sequence encoding ZABC1 ; Patent No. 6808878 US-08-892-655-9	Query Match 92.1%; Score 1387.2; DB 4; Length 10365; Best Local Similarity 97.3%; Pred. No. 0; Matches 1470; Conservative 3; Mismatches 32; Indels 6; Gaps 6;
Query Match 99.9%; Score 1504.8; DB 4; Length 1507; Best Local Similarity 100.0%; Pred. No. 0; Matches 1507; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	Qy 1 GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAAGG 60	Oy 61 CACTAARGCTTTGTGATTCATARTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG 1.20 Db 61 CACTAARGCTTTGTGATTCATARTTTGAATCGAGGCATTGGGAACCCTGTATGCCTTG 1.20	121	Qy 181 GACTATACACTTTCTTTTGAACTTTTATAATAATATTTTGCTCTGGTTTTTGGAACCCAGG 240	OY 241 ACTGTTAGAGGGTGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAAAATTGCCC 300	Qy 301 AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAACATGCCAACTCAATCCCT 360 	OY 361 CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTTGTCGCAGTCCGATGGAGATG 420	OY 421 GAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAAAAA 480	OY 481 ATGTCAATCCGAATCGAGGGAAATATGCCCTTGGATTGCATGTTCTGCAGCCAGC	OY 541 ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAA 600 	OY 601 CCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCGGGTTGATAAAAGTCAAGTGCGA 660 	OY 661 ACAGAACCTCCCAAGGAAAGAATTGCAAGGAAATGAATTTAGCTGTGAGGTATGTGGG 720	OY 721 CAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTC 780	OY 781 ACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAATCAC 840	dy 841 ATGCGGACRCATAATGCGAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGT 900 Db 841 ATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGT 900	Oy 901 AGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCAGCGGGCGAGAGCATCTCCTCTCT 960	OY 961 TGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAAG

8 6 8 6 8

S 8

g

8 8 8

ò

셤

8 8 8

g

8 6

상 성

g

8 8 8

g

8 8 8

ò

8 8 8

8 8 8

```
sequence 12664, Application US/09949016

Sequence 12664, Application US/09949016

Batent No. 6812339

GENERAL INFORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 06/241,755

PRIOR APPLICATION WINDER: 60/241,755

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

NUMBER OF SEQ ID NOS: 207012

SOFTWARE FastSEQ for Windows Version 4.0

SEQ ID NO 12604
                                                                                                                           1256
                                                                                                                                                                                                                                                                                                                                            1436
                                                                                                                                                              3682
                                                                                                                                                                                                                                                                                                                                                                                                                 1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                     3922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1951 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA 2010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2130
                    3562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
GAAGGAATTGGGGCCAAGAAGGGACCACCGACAACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                               CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGGATCCCAAGTTACCCAGTAGCAAGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                        AAAATCTCACCCTGAAACGGGGAAGAACCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                             CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                               CACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAAGGAAAAGTTGCCAAGAAAGT
                                                                                                                                                                                                                                                                                                          TGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAGAAGAAGTGCAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                   GAAGGAATCGGGGCAAGAAGGAAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                       GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGITGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2011 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 20022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1387.2;
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 92.1
Best Local Similarity 97.3
Matches 1470; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-09-949-016-12604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , ORGANISM: Humani
US-09-949-016-12604
                                                                                                                                                                                                                                                                                                       3743
                    3503
                                                        1137
                                                                                                                             1197
                                                                                                                                                                                                                                   3683
                                                                                                                                                                                                                                                                                                                                                                                3803
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM:
                                                                                         3563
                                                                                                                                                              3623
                                                                                                                                                                                                  1257
                                                                                                                                                                                                                                                                       1317
                                                                                                                                                                                                                                                                                                                                              1377
                                                                                                                                                                                                                                                                                                                                                                                                                 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2071
                                                                                                                                                   요
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                            දු දු
                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                              g
                                                                                                                         ò
                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                        2543
                                                                                                                                                                               2603
                                                                                                                                                                                                                                                                                                                           2723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3322
                                   2483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1077 TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC 1136
                                                                                                                                                                                                                                                                                                                                                               358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                        121
                                                                                                                                             181
                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                          298
                                                                                                                                                                                                                                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      926
                                                                                                                                                                2544 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                     2604 ACTATACACTITICITITIGAACTITITATAATAATAATTIGCTCTGGTTITIGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                 2724 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2784 CTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2963 CTTCACACATTCAGAAGACCTTAATAAAAACATGTCTTAATGCAACACGGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3083 GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3143 TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
                  2424 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA
                                                                                                                                                                                                                                                                                                              2664 GCTGTTAGAGGGGTGACTGACAAGTCCTTACAAGTGGCCCTTATTCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                               CCAACGGAACTTTGAGATTATACCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAATGTCAATCCGAATCGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3023 TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITCACTIACGGGTGIAACATGTGCGGAAGATTCAAGGAGCCTTGGTITCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3203 TTTCACTTACGGGTGTAACATGTGCGGAAGATATCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCGGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3323 GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGACGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3443 GCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGCAGACAGC
                                                                      ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                           2484 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                          TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                   ACTATACACTTTCTTTTGAACTTTTTATAATAAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                        241 ACTGTTAGA-GGGTGAGGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                   182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 444
                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1017
 ~
                                                                      62
                                                                                                                                                                                                                                                                                                                                                               299
                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             957
```

S

8 & B

8 6 8 6

8 8

a

8 8 8

6 6 6 6

日本日本日

දු පු

8 6 8 6

8 8 8

성 음

```
Sequence 16004, Application US/09949016

Fatent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WINBER: US/09/949,016

CURRENT APPLICATION NUMBER: 00/241,755

FRIOR APPLICATION NUMBER: 60/231,768

FRIOR APPLICATION NUMBER: 60/231,498

FRIOR FILING DATE: 2000-10-03

FRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 16004

LENGTH: 20023
                                                                                                                                       1436
                                                                                                                                                                             3389
                                                                                                                                                                                                                      1496
                                                                                                                                                                                                                                                           3449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC 2250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                         GAAGGAATCGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                 CTCCCACGCCAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                                                                                                                                                 CTCCCACGACGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                                                                                                                                                                                                    GCCCACTCACTCCGGGGGGGGGAAGCTTTCAGAACCTACCACCACCAGGTGGTCTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1951: CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGIGGAAAGAACCAGIGACACCAICACIGAGCIICCIAAAAGIICGAAGAAGIIAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2071 TTGTGGAAAGAACCAGTGACCCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2131 ACTATACACTTTCTTTTGAACTTTTATAATAATAATATTTGCTCTGGTTTTTGGAACCCAGG
                                                             TGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAAAGAGTGCAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2011 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 92.1%; Score 1387.2; I Best Local Similarity 97.3%; Pred. No. 0; Matches 1470; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                                                                       3450 CTCCAGGGTCC 3460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-16004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-16004
                                                                                                                                                                             3330
                                                               1317
                                                                                                                                         1377
                                                                                                                                                                                                                      1437
                                                                                                                                                                                                                                                             3390
                                                                                                                                                                                                                                                                                                  1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                   $ 8 &
                                                                                                                                                                   음 중 음
                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ብ ራ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2669
                                                                                                      2191 GCTGTTAGAGGGGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAATTGC 2250
                                                                                                                                                                                                                                                           2311 CTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTTTGGCAGTCCGATGGAG 2370
                                                                                                                                                                                                                                                                                                                                         2371 ATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAA 2430
                                                                                                                                                                                                                                                                                                                                                                                                                       2431 AAAAATGTC-ATCCAAATGGAGGGTATATGCCCTTGGATTGCATGTTCTGCAGGCCAGAC 2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2490 CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCTG 2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2730 TTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA 2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT 1316
      240
                                                                                                                                                                                                                                         417
                                                                                                                                                                                                                                                                                                                       476
                                                                                                                                                                                                                                                                                                                                                                                                    536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               896
    182 ACTATACACTTTCTTTTGAACTTTTATAATAAATTTGCTCTGG-TTTTGGAACCCAGG
181 ACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                  2251 CCAACGGAACTTTGAGATTATATCGAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                             CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGAACAGAACTCCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2670 TGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTCACTTACGGGTGTAACATGTGCGGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2790 TCACATGCGGACACATAATGGCAAATCGGGGCCAGAAGCAAACTGCAGCAAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2910 TCCTTACAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAGTCTAATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2970 GCACCGCAAGTGCACACAAAAAACTGCTTTCGGTACCAGCAGCGCGCAGACAGCAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3090 AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAAGGAAAAGTTGCCATTTGCCAAGAAGT
                                                                                 241 ACTGTTAGA-GGGTGAGAGAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                         CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                       ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTTCCGAGCTACACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                    AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCACATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGGAGCATCTCCTC
                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1257
                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                                                                                  477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        957
```

g ò g 8 6 8 6

ò g ò

ያ ይ

g

g

ò

g

ò

g

ò

ठे ते ठ

8 8 8

ે g

8 6

```
Sequence 3, Application US/09560594
Patent No. 6242590
GENERAL INFORMATION:
APPLICANT: Lex M. Cowsert
TITLE OF INVENTION: ANTISENSE MODULATION OF ZINC FINGER PROTEIN-217 EXPRESSION
TITLE OF INVENTION: ANTISENSE WOODINATION OF ZINC FINGER PROTEIN-217 EXPRESSION
CURRENT APPLICATION NUMBER: US/09/560,594
CURRENT FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 89
SEQ ID NO 3
LENGTH: 5632
3390 GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCACCTGGTCTTGCA 3449
                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGGTCTCTTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGCCTTGTTTGTGGAAAGAACCAGTGACACATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAACCCAGGACTGTTAGA-GGGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAACCCAGGGCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647 AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAAAGAGCACTAATGCTTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAAAGAGAACTAATGCTTTTTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTTAGAGGACTATACACTTTTTGAACTTTTTATAATAATATTTGCTCTGG-TTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    467 ACACAAAGAAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                Length 5632;
                                                                                                                                                                                                                                                                                                                                                                                                                                          32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                           Score 1337.2;
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 88.7%;
Best Local Similarity 97.2%;
Matches 1420; Conservative
                                             CTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                   ; NAME/KEY: CDS
; LOCATION: (272)...(3418)
US-09-560-594-3
                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                               3450 CTCCAGGGTCC
                                                                                                                     RESULT 6
US-09-560-594-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                             1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  г
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   දු දු
                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 B 8
                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                               2370
                                                                                        2430
                                                                                                                                                2489
                                                                                                                                                                                                        2549
                                                                                                                                                                                                                                                                  2609
                                                                                                                                                                                                                                                                                                                         2669
                                                                                                                                                                                                                                                                                                                                                                                 2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3389
                                                                                                                                                                                                                                                                                                                                                                                                                                          2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2850 GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTC 2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1437 GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA 1496
                                                            476
                                                                                                                     536
                                                                                                                                                                             296
                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                              716
                                                                                                                                                                                                                                                                                                                                                      776
                                                                                                                                                                                                                                                                                                                                                                                                                836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  926
   417
                                                                                                                                    CTCCCACGGGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGAAAA
                  CTCTTAATGTACATGGATGGCCCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                              2610 GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                   2730 TITCACTIACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACATGCGGACRCATAATGGCAAATCGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rcacarecegacacaraarescaareseseseseseaaaasaaaseasesaasaaserresa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3270 TGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
   CTCTTAATGTACATGGAT-GCCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAG
                                                            ATGGA-GATGCCTTGTCAATGAAAGGCCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA
                                                                                      AAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                             CTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGGCCTACCCTCTG
                                                                                                                                                                                                                                     TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                    TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                               GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                TTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3030 TCCACAAGGAAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAATCTCACCCTGAAACGGGGAAGAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAGAGAAGTGCAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3150 CACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                              2311
                                                                                                                                                                                                        2490
                                                                                                                                                                                                                                                                  2550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3330
                                                            418
                                                                                                                                                                          537
                                                                                                                                                                                                                                                                                              657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1377
                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                                                                                                                777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        837
   359
                                                                                                                   477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठ व ठ
```

유

õ

ያ ያ

셤 ò 셤 8 a 8 셤 ઠે 유 ઠે g Š 셤 ઠે 셤 ò g ò ద ઠે 셤 ઠે a

```
9
                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                            288
                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   348
                                                                                                                                                                                                                                                                                          171
                                                                                                                                                                                                                                                                                                                                                   230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                         61 TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAAAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                           TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                            GGAACCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 TCCGATGGAGATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                            GGAACCCAGGGCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCCTTATTCCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241. CAGAAATTGCCCAACGGAACTTTGAGATTATAGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAAAGAGCACTAATGCTTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                                                                                                                                                                                                                                                                                                                                  ACACAAAGAAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGTCAAGTGCGAACAGAACCTCCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                                                                                                                                                                                                    AAGTTAGAGGACTATACACTTTTTTGAACTTTTATAATAATATTTTGCTCTGG-TTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGC
                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                       . 9
                                                                                                                                                                            Length 5632;
                                                                                                                                                                                                      Indels
                                                                                                                                                                           DB 4;
                                                                                                                                                                                                      32;
                                                                                                                                                                         Score 1337.2;
Pred. No. 0;
3; Mismatches
                                                                           4.0
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: PARISEQ FOR WINDOWS VERSION 4.0.
; SEQ ID NO 862
; LENGTH: 5632
                                                                                                                                                                         Query Match 88.7%;
Best Local Similarity 97.2%;
Matches 1420; Conservative
                                                                                                                   TYPE: DNA
ORGANISM: Human
                                                                                                                                              US-09-949-016-862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                  22
                                                                                                                                                                                                                                                                                           112
                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                            231
                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           099
                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원 상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 &
                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
US-09-94-016-862

Sequence 862, Application US/09949016

Fatent No. 6812339

GENERAL INFORMATION:
FATLE OF INVENTION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR PILING DATE: 2000-10-20

FRIUNG DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1426
                                                                                                                                                                                                                                                                                                                                     1066
                                                                                                                                                                                                                                                                                                                                                                                              1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCCTTCCTATTTCCAAATAAAGAAA 1006
                                                                                                                                                                                                                                                                                                                                                                                                            1020 AGACAGACTCTCCACAAGGAGGAATGCCGTCCTCGAGGAGGACTTCCTGCAGTTGTTCA 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140 TCGATCCGTTCACCACCTTCCAGGCTTGGCAGCTGGCTACCAAAGGAAAAGTTGCCATTT 1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320 AGTGCAAACACTCCCACGGGGGAAGGCGCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA 1379
                                                                                                                                                                                                                                                                                                                                                                  GTCTAATTGAGCACCGCAAGGTGCACACACAAAAAACTGCTTTCGGTACCAGCAGCGCGC 1019
                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                 899
                   629
                                             766
                                                                                                      826
                                                                                                                               779
                                                                                                                                                             886
                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                   ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                     720 ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                            TTCTTAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGC
                                                                                                                                                                           AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                840 AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                                                                       900 GCATCTCCTCCTTACAAATCTGCATGGTTTGTGGCCTTCCTATTTCCAAATAAAGAAA
                                                                                                                                                                                                                                                                                                                                     GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAAGAAGTGAAGGAATCGGGGCAAGAAGGAGCACCGACGACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA
                                             GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                              ACTIGAGACCAAAATCICACCCIGAAACGGGGAAGAAGCCIGICAGAIGCAICCCICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGTCTTGCACTCCAGGGTCC 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                   767
                                                                                                                                                                                                                                                                                                                                     1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1367
                  909
                                             707
                                                                        9
                                                                                                                                                             827
                                                                                                                                                                                                                     887
                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                              1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1487
```

9

180 288 240 300

360 466 420 526 479

407

```
1127 ACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGC 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGGCTTGGAGAGTGCTCCAGCAACCATCAACGAGGTCGTCCAGGTGCACGCGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020 AGACAGACTCTCCCACAAGGAGGAATGCCGTCCTCGAGGAGGAGTTCTTCTGTTCA
               1 GACAAAAGAAACTAAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTG
                                                TATGCCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAG
                                                                                                                                                 GGAACCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTC
                                                                                                                                                                                                 CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                              CAGAAATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCC
                                                                                                                                                                                                                                                  AACTCAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAG
                                                                                                                                                                                                                                                                                                TCCGATGGAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCT
                                                                                                                                                                                                                                                                                                             467 ACACAAAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                               GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCCAACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                              480 GCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAGGTATGTGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGGAAGAAGAAGATCAAGGGGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840 AAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGC
                                                                                                 421 TACACAAGAAAAAATGTC-ATCCAAATCGAGGGTATATGCCCTTGGATTGCATGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGAAGATTCAAGGAGCCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1067
                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                  349
                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                  112
                                                                                                 172
                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                  408
                                                                                                                                                                                                                                                                                                                                                                                                 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         099
                                                                                                                                                 231
                                                                                                                                                                                                                                                                                                                 영 참
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                         රු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               дq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                ò
                                                                     셤
                                                                                                                q
                                                                                                                                               S G
                                                                                                                                                                                          8 %
                                                                                                                                                                                                                                              6 8 6
                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4262, Application US/09949016

Sequence 4262, Application US/09949016

Sequence 4262, Application US/09949016

SERVERAL INFORMATION:

APPLICANT: VENTER,

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REPRESENCE: CLOOU3307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR PLING DATE: 2000-10-20

PRIOR PLING DATE: 2000-10-03

PRIOR PLING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 4262

LENGTH: 5632
                                                                                                                                                                                                                                                                                                                                                                                                                                   1486
                                                                                      1066
                                                                                                             1019
                                                                                                                                                                                                              1139
                                                                                                                                                                                                                                       1246
                                                                                                                                                                                                                                                                                     1306
                                                                                                                                                                                                                                                                                                             1259
                                                                                                                                                                                                                                                                                                                                      1366
                                                                                                                                                                                                                                                                                                                                                             1319
                                                                                                                                                                                                                                                                                                                                                                                     1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                   1140 TCGATCCGTTCACCACCTTCCAGGCTTGCCACCGAAAGGAAAAGTTGCCATTT
                                                                                                                                                                                                                                                                                                   1200 GCCAAGAAGTGAAGGAATCGGGGCAAGAAGGGGGGGCACCGACAACGACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                                  AGAAGGAGCTTGGAGAAAAAAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAAAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                   AGTGCAAACACTCCCACGGGGAAGCGCCTCCGTGGACGGGGATCCCAAGTTACCCAGTA
                                                                                                                                                                                                                                                                                                                                                                                                     1320 AGTGCAAACACTCCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAAGGAGAGACCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380 GCAAGGAGAAGCCCACTCACTCCCAGTGCGGCAAAGCTTTCAGAACCTACCACCAGC
960 GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAACTGCTTTCGGTACCAGCGGGC
                                                                                                                                     GCCAAGAAGTGAAGGAATTGGGGCCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCG
                                                                                                                                                                                                                                                                                                                                      AGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAGAGA
                                                                                      GTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGC
                                                                                                                                                                                                                                       TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 88.7%; Score 1337.2; Best Local Similarity 97.2%; Pred. No. 0; Matches 1420; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Human
                                                                                      1001
                                                                                                                                                                                                                                                                                                                                      1307
                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                     1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                     1067
                                                                                                                                                                                                                                     1187
                                                                                                                                                                                                                                                                                     1247
                                                                                                                                                                                                                                                                                                                                                                                                                                     1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1487
                                                                                                                                                                                                                              장염
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                      g &
                                                                                                                                                                                                                                                                                                                                                                                                      DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                   ઠે
                                                       g
                                                                                    8 6
                                                                                                                           8
                                                                                                                                                      8 & 8
                                                                                                                                                                                                                                                                             ∂
                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

599

706 629

539 646 766 719 826 779 886 1066 1019

1006

959

946 899

```
TTGTGGCTTCCTATTTCCAAATAAAGAAGTCTAATTGAGCACCGCAAGGTGCACACAA 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960 GAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGGGCAG 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020 TTGTGCAGGCCTCTCGCAAGAGAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCTC 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAACTGCTTTCGGTACCAGCAGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTC 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCA 1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           899
   557
                                                                            239
                                                                                                           617
                                                                                                                                       299
                                                                                                                                                                      677
                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                               419
                                                                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                          857
                                                                                                                                                                                                                                                                                                                                                                          GTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACACATAATGG 539
                                                                                                                                                                                                                                                                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                 737
                                                                                                                                                                                                                                                                                             797
                                                                                                                                                                                                                                                                                                                                                                                                                                     ritigatericaearceacareaeacacacaeaaearriteriteacitaceereraear
                                                                                                                                                                                                                                                 AAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGC
                                                               GGGGTATATGCCCTTGGATTGCATCTTTGGCAGCCAGACCTTCACACATCAGAAGACCT
                                                                                                           TAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGT
                                                                                                                            240 TAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGT
                                                                                                                                                                                         TGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACACAACGA
                                                                                                                                                                                                                                                                                                                                                          GTGCGGBAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAGGTCGTCCAGGTGCAGGCGGCCGAGAGCATCTCCTCTTACAAAATCTGCATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGTGGCTTCCTATTTCCAATAAAGACTCTAATTGAGCACCGCAAGGTGCACACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAACGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGCAAGAAGG
                                                                                                                                                                      TGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGA
                                                                                                                                                                                                                                                                                             TTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                    CAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAAACTGCTTTCGGTACCAGCAGCGCGCAGACAGACTCTCCCACAAGGAGAATGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840 GAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900 GCTGGCTACCAAAGGAAAAGTTGCCATTTGCCAAGAAGTGAAGGAATCGGGGCAAGAAGG
                                               GGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACATTCAGAAGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTGCAGGCCTCTCGCAAGAGAAAGAGAGTGCAAACACTCCCACGGCGAAGCGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGCAAAGCTTTCAGAACCTACCACCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                   121
                                                                            180
                                                                                                           558
                                                                                                                                                                      618
                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1398
                                               498
                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                             738
                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                          798
                                                                                                                                                                                                                                                                                                                                                                                                                     828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                    셤
                                                                                              ò
                                                                                                                               셤
                                                                                                                                                                    à
                                                                                                                                                                                            셤
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                       1306
                                                                                                                                                                                                                                 1426
                                                                                                                                                                                                                                                                                             1486
1380 GCAAGGAGAAGCCCACTCACTCCCAGTGCGGCAAAGCTTTCAGAACCTACCACCCAGC 1439
                                                                                                                                                                                                    1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                       1140 TCGATCCGTTCACCACCTTCCAGGCTTGCCAGCTACCAAAGGAAAAGTTGCCATTT
                                                                                                                                                                  1320 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGGATCCCCAAGTTACCCAGTA
                                                                                                                                                                                                                                                                                          GCAAGGAGAAGCCCACTCACTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGAGATGCAGGAGCCTTGTCAATG
                                                                                                                                                                                                 1260 AGAAGGAGCTTGGAGAAACAAATAAGGCCAGTTGTGCAGGCCTCTCGCAAGAGAAGAGA
                                                                                                                                                                                                                                 AGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             320 ATGCAATCGAAAGTGACAGGAAACATGCCAACTCCAATCCCTCTTAATGTACATGGAT-GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAGATGGA-GATGCCTTGTCAATG
                                              TCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INVERGATION:

GENERAL INVERGATION:

APPLICANT: Gray, Joe W

APPLICANT: Collins, Collin

APPLICANT: Hanag, Soo In

APPLICANT: Godfrey, Tony

APPLICANT: Rowel, Javid

APPLICANT: Rowel, David

APPLICANT: Rowels, Johanna

TILLE OF INVENTION: GENES FROM THE 20013 AMPLICON AND THEIR USES

FILE REFERENCE: 2500.12493

CURRENT APPLICATION NUMBER: US/08/892,695A

CURRENT APPLICATION NUMBER: 08/785,532

EARLIER APPLICATION NUMBER: 08/785,532

EARLIER APPLICATION NUMBER: 08/781,499

EARLIER FILING DATE: 1997-01-17

EARLIER PILING DATE: 1996-07-15

NUMBER OF SEQ ID NOS: 59

SOFTWARE: PATENTIN Ver. 2.0

LEWING DATE: 1986-07-15

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: ZABC1 Open COTHER INFORMATION: Reading Frame US-08-892-695-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4; Length 3186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 73.6%; Score 1108.6; Best Local Similarity 97.1%; Pred. No. 0; Matches 1156; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                       TGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10, Application US/08892695A Patent No. 6808878 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                              1187
                                                                                                                                                                    1307
                                                                                                                                                                                                                               1367
                                                                                                                                                                                                                                                                                            1427
                                                                                                                                                                                                                                                                                                                                                         1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                 1080
               유
                                                                   ብ እ
                                                                                                                               g
                                                                                                                                                                  ઠે
                                                                                                                                                                                          요
                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                     장. 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                           δ
                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
APPLICATT: VENTER, J. Craig et al.
APPLICATT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PRIOR DATE: 2000-10-03
PRIOR PLING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 151879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
Sequence 34699, Application US/09949016

| Sequence 34699, Application US/09949016
| Patent No. 6812339
| GENERAL INFORMATION:
| PAPPLICANT: VENTER, J. Craig et al.
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ITLE REFERENCE: CLO01307
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF |
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF |
| TITLE REFERENCE: CL001307
| FILE REFERENCE: CL001307
| FRIOR APPLICATION NUMBER: 60/231,768 |
| PRIOR FILING DATE: 2000-10-03 |
| PRIOR FILING DATE: 2000-09-08 |
| NUMBER OF SEQ ID NOS: 207012 |
| SOFTHARE: FESTESEQ for Windows Version 4.0 |
| LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                                                                                                             535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | TCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGGGGCCGAGAGCATCTCCTCTCTTG 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTCAC 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         475 ACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415 AGCAGTICTICGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAGTGCGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115 recadeaacearcaaceaegregregrecaegrecaegeegeegaagearcregregregra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         534 GTC-ATCCAAATCGAGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCTCTGTGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                              423 GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 36.5%; Score 550.8; DB 4; Length 601; Best Local Similarity 96.1%; Pred. No. 8.1e-173; Matches 572; Conservative 2; Mismatches 20; Indels 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
US-099-949-016-151879/C
's Sequence 151879, Application US/09949016
's Patent No. 6812339
                                                                                                                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-34699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ራ 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
416
                                                                                                                                                                                                                                                                      602
                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235 TTACGGGGGTGTAACATGTGCGGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      903 TCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            594 GATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAAAAAT
                                                                                                                                                                                                                                                                      ACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACC
                                                                                                                                                                                                                                                                                                                                            AGCAGITCITCGGGITGAAGCAGAGIATCTCAGICCGCTTGAIAAAAGICAAGIGCGAAC
                                                                                                                                                                                                                                                                                                                                                                GCGGACRCATAATGGCAAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAG
                                                                                                                          423 GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAAT
                                                                                                                                                                                                 GTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                   AGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 36.5%; Score 550.8; DB 4; Length 601; Best Local Similarity 96.1%; Pred. No. 8.1e-173; Matches 572; Conservative 2; Mismatches 20; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Human
US-09-949-016-151879
```

ö

```
Best Local Simiarry
Matches 456; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 277 CTHER INFORMATION:
                                                          ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-151880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-09-513-999C-11828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-513-999C-11828
                                                                                                                                                                                                                                                                                                                                                                                                                              1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1284
                                                                                                                                   Query Match
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 151880, Application US/09949016
; Sequence 151880, Application US/09949016
; Retent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; FILE REPRENCE: CLOAD307
; CURRENT APPLICATION NUMBER: 06/241,755
; PRIOR APPLICATION NUMBER: 60/231,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; PRIOR RELING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
     WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                           1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1344 AGGCCTCTCGCAAGAGAAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGA 1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362
                                                                                                                                                                                                                                                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 CGACAACGACCATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGGGCAGTTGTGC 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                              601 TGCTTTCGGTACCAGCACGCGCAACAGACTCTCCACAAGGAGAGAATGCCGTCGTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 TACCAAAGGAAAAGTTGCCATTTGCCAAGAAGTGAAGGAATCGGGGCAAGAAGGGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 WGGCTCTCGCAAGAAGAAAGAGAAGTGCAAACACTCCCAGGGGAAGCGCCTCCCGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1044 TGCTTTCGGTACCAGCAGCGCAGACAGACTCTCCCACAAGGAGGAATGCCGTCCTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1164 GCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 GCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAGGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGGCAAGAAGGGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGC
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                   Query Match 30.2%; Score 454.8; DB 4; Length 601; Best Local Similarity 98.3%; Pred. No. 8.9e-141; Matches 456; Conservative 3; Mismatches 5; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1464 AGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 138
TITLE OF INVENTION: WITH HUMAN DISEASE, METI
FILE REFERENCE: CLOOL1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-3
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-0-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FELLING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FELLING DATE: 2000-09-08
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
US-09-949-016-151880/c
                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-34700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
1103
                                                                                                                                                                                                                                                                                                                                                                                 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    542
                                                                                                                                                                                                                                                                                                                                                                                                                                   482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 CGACAACGACGATTCCGAGTTCCGAGAAGGAGCTTGGAGAACAAATAAGGGCAGTTGTGC 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 TACCAAAGGAAAAGTTGCCATTTGCCAAGAAGTGAAGGAATCGGGGCAAGAAGAGGGAGCAC 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
TILE Giordano, J.Y.
TILE GIORDANION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
FILE REFERENCE: 59.032 REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR PAPLICATION NUMBER: US 60/122,487
PRIOR PILING DATE: 1999-02-26
NUMBER OF SEG ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 11828
LENGTH: 298
LENGTH: 298
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1044 TGCTTTCGGTACCAGCAGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTCCTCGAG
                                                                                                                                                                                                                                                                                                              601 TGCTTTCGGTACCAGCAGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTCCTCGAG
                                                                                                                                                                                                                                                                                                                                                                                   1104 GGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                              CGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1344 AGGCCTCTCGCAAGAGAAAGAGAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1164 GCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGCAAGAAGGGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 GCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAGCTGGC
                                                                                                                                                                                                                                 ö
                                                                                                                                                                            DB 4; Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 197.2; DB 4; Length 298; Pred. No. 5e-55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1464 AGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 AGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 138
                                                                                                                                                                            30.2%; Score 454.8; DB 4; 98.3%; Pred. No. 8.9e-141; iive 3; Mismatches 5;
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 151880 LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 11828, Application US/09513999C; Patent No. 6783961; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13.1%;
98.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8=g or c
```

```
Search completed: June 29, 2005, 05:27:50 Job time: 176.067 secs
                                                        셤
      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                              939 gagriccecreccaagrerececcaegecriracacagrerregricteaageceae 998
                                                                                                                                                                                                                                                                                                                   122 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697 GAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCAC 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                757 ATGAGAACACACAAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAG 816
                                                                                                                                                                                         62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT 121
                                                              2 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC 61
                                                                                                                                                                                                                                157 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 68.8; DB 4; Length 2765;
Pred. No. 1.7e-11;
1; Mismatches 63; Indels 0
   3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Land, 
   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  277 SCTATACACTTTCTTTTGAACT 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                182 ACTATACACTTTCTTTTGAACT 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 61, Application US/09620312D Patent No. 6569662
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 62.4%;
Matches 106; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Tang, Y. Tom
APPLICANT: Liu, Chenghua
APPLICANT: Asundi, Vinod
APPLICANT: Zhang, Jie
APPLICANT: Ren, Feiyan
APPLICANT: Chen, Rui-hong
APPLICANT: Zhao, Qing A.
APPLICANT: Wehrman, Tom
   Matches 199; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-09-620-312D-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                쉱
                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                       D
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

Sequence:

.. 0

Run

Searched:

Database

Result

```
Sequence 3, Application US/08731499
Publication No. US20030148270A1
GENERAL INFORMATION:
APPLICANT: GRAY, Joe W.
APPLICANT: HANG, Soo In
APPLICANT: WOMBEN, Joe W.
APPLICANT: WOMBEN, David
APPLICANT: ROWBEL, David
APPLICANT: ROWBEL, David
APPLICANT: ROWBEN, Johanna
TITLE OF INVENTION: USES
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew
STREET: Two Embarcadero Center, 8th Floor
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 US-10-087-192-1706
6 US-10-029-386-9711
8 US-10-029-386-9711
8 US-10-029-386-9711
8 US-10-029-386-9711
9 US-10-029-386-9711
1 US-10-9386-9711
1 US-10-9386-9711
1 US-10-9386-9711
1 US-10-9386-9711
2 US-10-029-386-20193
5 US-10-029-386-20193
5 US-10-039-386-20193
6 US-10-039-386-1394
1 US-09-764-847-1394
1 US-09-764-847-1396
1 US-09-764-864-99
1 US-10-029-154-1394
1 US-09-764-864-99
1 US-10-029-386-9132
9 US-10-039-386-9132
9 US-10-039-386-9132
9 US-10-039-386-9132
9 US-10-04-919-1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-092-154-1628
US-09-764-846-312
US-09-764-847-1629
        10014
10259
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
10265
    RESULT 1
US-08-731-499-3
      537
215.6
156.4
103.2
103.2
                                                                                                                                     Sequence 3, Appli
Sequence 9, Appli
Sequence 1708, Ap
Sequence 105, App
Sequence 10, Appl
Sequence 1705, Ap
                                                                                                                                                            (without alignments)
15978.923 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                         1 GCAGGTTGCTGGGATTGACT.......GGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                       June 29, 2005, 01:06:08; Search time 589.497 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FULLIBRICA Appliated LOUB LANG TO PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US67_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US66_PUBF DUB. Seq: *

(cgn2_6/ptodata1//pubpna/US66_PUBF DUB. Seq: *

(cgn2_6/ptodata1//pubpna/US07_NEW_PUB. Seq: *

(cgn2_6/ptodata1//pubpna/US08_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US08_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US08_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US09_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US10B_PUBCOMB. Seq: *

(cgn2_6/ptodata1//pubpna/US10B_PUBCOMB
                      5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-731-499-3

US-08-731-499-9

US-08-191-499-9

US-10-177-293-505

US-10-177-293-505

US-08-731-499-10

US-08-731-499-10
                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                          6067389 segs, 3125258755 residues
                        GenCore version
Copyright (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                 nucleic search, using sw model
                                                                                                                                                                                                                                                                                                IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
8
13
13
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length DB
                                                                                                                                                                                                                  US-08-731-499-3
1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1507
10365
36022
5632
5252
3186
26345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1504.8
1387.2
1337.2
1132.6
1106.2
573.6
                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                   OM nucleic -
```

Sequence 1511, Ap Sequence 1511, Ap Sequence 23411, Ap Sequence 23411, Ap Sequence 2019, App Sequence 20193, A Sequence 61, Appl Sequence 61, Appl Sequence 1136, Ap Sequence 1396, Ap Sequence 1396, Ap Sequence 1396, App Sequence 1396, App Sequence 100, App Sequence 99, Appl Sequence 550, App Sequence 225, App Sequence 225, App Sequence 225, App Sequence 225, App Sequence 278, App Sequence 2106, App Sequence 1016, App Sequence 158, App Sequence 1628,
720

N

```
ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCC 1500
                                                                                                                                                                                                                CAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAATTGGGGCGAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 ACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGG
                                                                                            ACTTACGGGTGTAACATGTGCGGAAGAATCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                                                                             AGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTCTCCT
                                                                                                                                                                                                                                                                             CAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rereaceergaaacagaaagaageergreagargeareeercageregareegrreace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Acctrccaggcrrggcakcrggcraccaaaggaawagrrgccarrrgccaagaagrgaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAAAGAGAAAGTGCAAACACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCCC
                                                                         CAGACATITAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTC
                                                                                                                                     ACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAATCAC
                                                                                                                                                                                                 ATGCGGACRCATAATGGCAAATCGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 9, Application US/08731499
Publication No. US20030148270A1
GENERAL INCEMARION:
APPLICANT: GRAY. Joe W.
APPLICANT: COLLINS, Colin
APPLICANT: HWANG, Soo-In
APPLICANT: WOMERE, David
APPLICANT: ROWMENS, Johanna
TITLE OF INVENTION: GENES FROM THE 20q13 AMPLICON AND THEIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501 AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1501 AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
US-08-731-499-9
                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441
                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381
                                                                                                    721
                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                         721
                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                 g
                                                                                                                                                             g
                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                     ò
                                                                                                                                   ò
                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATTCTGCAGCCAGACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTATACACTTTTGGAACTTTTATAATAATATTTGCTCTGGTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGTTAGAGGGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGTTAGAGGGTGAGTGACAGGTCTTACAGTGGCCTTAATCCAACTCCAGAAATTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTAATGTACATGGATGGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGGITGCTGGGATTGACTTCTTGCTCATTGAAACACTCATTCAATGGAGACAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GCAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGATGCCTTGTCAATGAAAGGCCCONCTGTTGTCAATTCCGAGCTACAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     ő
                                                                                                                                                                                                                                                                                                                                                                                                       DB 8; Length 1507;
                                                                                                                                                                                                                                                                                                                        /note= "cDNA clone cc49 of 6-7kb transcript with homology to C2H2 zinc finger genes"
                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/680,395
FILING DATE: 15-UUL-1996
ATTORNEY/AGENT INFORMATION:
NAME: HURLEY, TOM
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 23070-068910
TELECOMMUNICATION INFORMATION:
TELEPAK: (415) 576-0200
TELEPAK: (415) 576-0300
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1507 basie
                                                                                                                                                                                                                                                                                                                                                                                                    99.9%; Score 1504.8; 100.0%; Pred. No. 0; iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                         NAME/KEY:

LOCATION:

OTHER INFORMATION:

OTHER INFORMATION:

OTHER INFORMATION:

US-08-731-499-3
                                                                                                                                                                                                                                                            MOLECULE TYPE: CDNA FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 1507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
```

a

ò

ò g ò a ò ద ò

셤 ò 유

ठे

\$ B &

Ор

ò

g

셤

ò

g

ò

1260 1260 1320 1380 1380 1440 1440

1320

1080 1080 1140 1140 1200

```
2962
                                                                                                                                                                                                                                                                                                                                                                   3082
                                                                                                                                                                                                                                                                                                                                                                                                                                                              3142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1376
                                                                                                                                                                                                                                                 3262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTC 3382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTTACAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAGAAAGTCTAATTGA 3442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGT 1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA 1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA 1496
                                                                              2844 ATGGAGGATGCCTTGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGAA 2903
                                                                                                                                                                                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           836
                                                                                                                             536
                                                                                                                                                                                                                                                                                                                      959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAGATTC 776
                                                                                                                                                      CITCACACATTCAGAAGACCITAATAACATGICTTAATGCAACACCGGCCTACCCTCTG
                                                                                                                                                                                                                                                                                                                                               3023 TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                  GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2203 TTTCACTTACGGGTGTAACATGTGCGGAAGAAGAAGATCAAGGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACATGCGGACRCATAATGGCAAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGAAGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                     ATGGA-GATGCCTTGTCAATGAAAGGGCCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCACAAGGAGGAATGCCGTCCTCCAGGGAGGACTTCCTGCAGTTGTTTCAACTTGAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATCTCACCCTGAAACGGGGAAGAACCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCACCTTCCAGGCTTGGCTGGCTGCCAAAAGGTTGCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGGAATCGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCTCAGTCCGCTTGATAAAAGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3743 TGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAAAAAGAAGTGCAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCCAAGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             717
                                                                                                                                                                                                                                                                       2963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3803
                                     418
                                                                                                                             477
                                                                                                                                                                                                                         537
                                                                                                                                                                                                                                                                                                                      597
                                                                                                                                                                                                                                                                                                                                                                                                                  657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3863
                                                                     셤
                                                                                                                             ઠે
                                                                                                                                                             셤
                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2664 GCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC 2723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC 2783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2424 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCCATTCAATGGAGACAAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2544 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2604 ACTATACACTTTCTTTTGAACTTTTATAATAATATTTTGCTCTGGTTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGTTAGA-GGGTGAGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAACGGAACTTTGAGATTATGCAATCGAAAGTGACAGGAAACATGCCAACTCCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 8; Length 10365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: -
LOCATION: 1..10365
COTHER INFORMATION: /note= "Genomic Sequence Encoding
OTHER INFORMATION: ZABCI"
                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/731,499

FILING DATE: 16-0CT-1996

CLASSIPICATION: 435

PILING DATE: 15-0CT-1996

ATTORNEY/AGENT INFORMATION:

NAME: Hunter, Tom

REGISTRATION NUMBER: 38,498

REFERENCE/DOCKET NUMBER: 23070-068910

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION IN
NUMBER OF SEQUENCES: 44
CORRESPONDENCES: 44
CORRESPONDENCE ADDRESS: Townsend and Townsend and Crew STREET: Two Embarcadero Center, 8th Floor CITY: San Francisco CITY: San Francisco COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 92.1%; Score 1387.2; Best Local Similarity 97.3%; Pred. No. 0; Matches 1470; Conservative 3; Mismatches
                                                                                                                                                                                         ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-731-499-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         359
```

셤 ò a ò g è 유

ઠે

셤 ઠે g ઠે

ઠે

g

ò

```
10729
                                                                                                                                                                                                                   10849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11149
                               10609
                                                                                                10669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1256
                                                                                                                                                                                                                                                                    968
                                                                                                                                                  10610 GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                                                                                                                                                                                                                                        10850 GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGTGCCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10790 TCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                        TCCACAAGGAGGATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11090 AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCCATCCCTCAGCTCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1257 GAAGGAATTGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCCACGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCA
                                                                  GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATG
                                                                                                                                   TGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAGATTC
                                                                                                                                                                                                   TTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAA
                                                                                                                                                                                                                                                                    TCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGA
                                                                                                                                                                                                                                                                                                                                     GAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                         GCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAGCGCGCAGACACACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCCATTTGCCAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 505, Application US/10177293; Publication No. US20030124128A1; GENERAL INFORMATION:
APPLICANT: Lillie, James; APPLICANT: Glatt, Karen
APPLICANT: Zhao, Xumei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
US-10-177-293-505
                                                                                                                                                                                                                                                                                                                                      897 (
                                                                                                                                                                                                                                                                                                                                                                                                       957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1017 (
                                                                  657
                                                                                                                                 717
                                                                                                                                                                                                 777
                                                                                                                                                                                                                                                                    837
597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11450
                                                                                                                                                                                                                                 g
                                                                                              셤
                                                                                                                                                             셤
                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                              ò
                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9951 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA 10010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10311 CTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGA 10370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCACACACTTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTG 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10191 GCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC 10250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .0071 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGCTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10131 ACTATACACTTTCTTTTGAACTTTTATAATAATAATTTGCTCTGGTTTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10011 ACTAATGCTTTGTGCTGATTCATATTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTGTTAGA-GGGTGAGGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 36022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32; Indels
                                                                                                                                                         APPLICANT: Morris, David W.
APPLICANT: Engelhard, Eric K.
TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR TITLE OF INVENTION: CONCER.
FILE REPERENCE: 529452000122
CURRENT FILING DATE: 2002-03-01
PRIOR APPLICATION NUMBER: US 09/747,377
PRIOR APPLICATION NUMBER: US 09/747,377
PRIOR APPLICATION NUMBER: US 09/798,586
PRIOR APPLICATION NUMBER: US 09/798,586
PRIOR PILING DATE: 2000-12-22
PRIOR PILING DATE: 2001-03-02
NUMBER OF SEQ ID NOS: 2059
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Score 1387.2;
; Pred. No. 0;
3; Mismatches
                                                                                                          Sequence 1708, Application US/10087192; Publication No. US20020182586Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 97.3%;
Matches 1470; Conservative
                             crccasscrcc 3933
                                                                                                                                                                                                                                                                                                                                                                                                                                     ; ORGANISM: Homo sapiens
US-10-087-192-1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10490
                           3923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   537
                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
```

q

ò 엄

음 ò

ò

ò g 셤

ઠે

g 중 점

ò

qq

ò

ઠે

g

	927 780 887 840 947 900 1007	
APPLICANT: Gannavarpu, Manjula APPLICANT: Kamatkar, Shubhangi APPLICANT: Kamatkar, Shubhangi APPLICANT: Mertens, Maureen APPLICANT: Mertens, Maureen APPLICANT: Mertens, Vic APPLICANT: Mertens, Vic APPLICANT: Monahan, John APPLICANT: Hoersen, Sebastian APPLICANT: Hortobagyi, Gabriel E. APPLICANT: Hortobagyi, Gabriel B. APPLICANT: Hortobagyi, Gabriel N. APPLICANT: Pusztai, Lajos APPLICANT: Pusztai, Lajos APPLICANT: Meric, Funda APPLICANT: Meric, Punda APPLICANT: Meric, Punda APPLICANT: Mils, Gordon B. TITLE OF INVENTION: COMPOSITIONS, KITS, AND METHODS FOR IDENTIFICATION, ASSESSMENT TITLE OF INVENTION: COMPOSITIONS, KITS, AND THERAPY OF BREAST CANCER CURRENT APPLICATION NUMBER: US/10/177,293 CURRENT APPLICATION NUMBER: US/10/177,293 PRIOR APPLICATION NUMBER: US 60/299,887 PRIOR FILING DATE: 2001-06-21	PRIOR APPLICATION NUMBER: US 60/301,572 PRIOR APPLICATION NUMBER: US 60/306,501 PRIOR APPLICATION NUMBER: US 60/305,501 PRIOR FILING DATE: 2001-07-18 PRIOR FILING DATE: 2001-09-25 PRIOR PLILING DATE: 2001-09-25 PRIOR PLILING DATE: 2002-03-05 PRIOR APPLICATION NUMBER: US 60/362,585 PRIOR PLILING DATE: 2002-03-05 PRIOR PLILING DATE: 2002-05-14 NUMBER OF SEQ ID NOS: 506 EQ ID NO SOS LENGTH: 5632 LENGTH: 5632 LENGTH: 5632 LENGTH: 5632 LENGTH: 5632 LENGTH: 673-505	### ### ##############################

3 6 6 6 6 6 6 6 6 6 6 6 6

```
1193
                                                                                                                                                                                                                                                                                                                                                                                                                                       1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1199
                                        1073
                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                   959
                                                                                                                                                                                                                                                                                                                               GTTCACCACCTTCCAGGCTTGGCAGCTACCAAAGGAAAAGTTGCCATTTGCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080 ACACTCCCACGCGCAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTT
660 CTCTCCTTACAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAAGAAAGTCTAAT
                                           CTCTCCACAAGGAGGAATGCCGTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAG
                                                                                                                                                       780 CTCTCCACAAGGAAGGAAGGAATGCCCTCCTCGAGGGAAGACTTCCTGCAGTTGTTCAACTTGAG
                                                                                                                                                                                                                    ACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCC
                                                                                                                                                                                                                                                ACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCC
                                                                                                                                                                                                                                                                                                        GTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCAATTTGCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                       <u> AGTGAAGGAATCGGGGCAAGAAGGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGA</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020 GCTTGGAGAAAAAAAAGGGCAGTTGTGCAGGCCTCTCGCAAGAGAAGAAGAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> ACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGA</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140 GAAGCCCACTCACTCCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTT
                                                                          AGTGAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCCGAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCGCAAGAGAAGAGAAGTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: GRAY, JOE W.
APPLICANT: COLLINS, Colin
APPLICANT: COLLINS, Colin
APPLICANT: HWANG, Soo.In
APPLICANT: KOWERL, David
APPLICANT: KOWERL, David
APPLICANT: KOMERNS, Johanna
APPLICANT: AUMENTION: GENES FROM THE 20q13 AMPLICON AND THEIR
TITLE OF INVENTION: USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew STREET: Two Embarcadero Center, 8th Floor CITY: San Francisco STATE: California COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/731,499
FILING DATE: 16-CCT-1996
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER: US 08/680,395
FILING DATE: 15-JUL-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 10, Application US/08731499; Publication No. US20030148270A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1200 GCACTCCAGGTCC 1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
US-08-731-499-10
                                           1014
                                                                                                                                                                                                                                                                                                                                                   006
                                                                                                                                                                                                                  1134
                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                       096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1494
                                                                                                                              1074
                                                                                                                                                                                                                                                                                                                                                                                              1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1434
                                                                                                                                                                                                                                                                                                        1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1314
                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                               a
                                                                                                                              8
                                                                                                                                                                     셤
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 TCCCTCTTAATGTACATGGATGGACCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 GAGATGGAGGATGCTTGTCAATGAAAGGACCGCTGTTGTTCCATTCCGAGCTACACAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480 TICTITCACTIACGGGIGIAACAIGIGCGGAAGAAGAITCAAGGAGCCTIGGITTCTIAA 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600 GGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTC 659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACAAA 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 GAAAAAAATGTC-ATCCAAATGGGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTGBACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420 ATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240 GACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGAACACCGGCCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540 AAATCACATGCGGACACATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGGGCCGAGAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           296 TGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 TGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAAAAATGTCAATCCGAATCGAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACCTTCACACATTCAGAAGACCTTAATAACATGTCTTAATGCAACACCGGCCTACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 13; Length 5252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۳
ښ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                          APPLICANT: Mortis, David W.
APPLICANT: Engelhard, Eric K.
TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: NOVELE COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: 0.2002.03.01
FILE REFERENCE: 529452000122
CURRENT PAPLICATION NUMBER: US 09/747,377
PRIOR PILING DATE: 2000-12-22
PRIOR PILING DATE: 2000-12-22
PRIOR PLING DATE: 2001-03-02
NUMBER OF SEQ ID NOS: 2059
SOFTWARE PREASEQ for Windows Version 4.0
SEQ ID NO 1709
LENGTH: 5252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75.2%; Score 1132.6;
97.2%; Pred. No. 0;
:ive 3; Mismatches
               Sequence 1709, Application US/10087192
Publication No. US20020182586A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 97.2
Matches 1180; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-10-087-192-1709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            954
                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

셤

ò

g

ð a à

ò

유 중 & g

∂

ò

요

ò ብ ራ 셤

g δ

ઠે

셤

959

```
GAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCA 1217
                                                                                                                                                                                                                                           GAGCACCGACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCA 1337
                                                                                                                                                                                                                                                              1020 TIGITECAGGCCTCTCGCAAGAGAAAAAGTGCAAACACTCCCACGCGAAGCGCCCTC 1079
                                                                                                                                                                                                                                                                                                                                                                           KCTGGCTACCAAAGGAAWAGTTGCCATTTGCCAAGAAGTGAAGGAATTGGGGCAAGAAGG 1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9674 cacarreceggarcaacererrecreaacreaeceaereaeceaeregaearegaeae 9733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9734 CTGTTGCCCTCGTGCTGACGCACATCTGACTCACAGCCTGGGGCAGCTTGGATGCCTTGT 9793
                                                                                                                            840 GAAGAAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCCTTCCAGGCTTGGCA 899
          720 AAAAACTGCTTTCGGTACCAGCGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTC 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTTGGAACCCAGGA 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                            780 CTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAAACGGG
                                                                                                                                                                                           GCTGGCTACCAAAGGAAAAGTTGCCATTTGCCAAGAAGTGAAGGAATCGGGGCAAGAAG
                                                                                                                                                                                                                                                                                                           TTGTGCAGGCCTCTCGCAAGAGAAAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140 cégchangerrireaganceraceaceagérgererrecaereceagéree 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 26345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 573.6; DB 13; Length
Pred. No. 1.9e-168;
3; Mismatches 448; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1705, Application US/10087192
| Publication No. US20020182586A1
| GENERAL INPORMATION:
| APPLICANT: Morris, David W. |
| APPLICANT: Morris David W. |
| TITLE OF INVENTION: CANCER |
| TITLE OF INVENTION: CANCER |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| TITLE OF INVENTION: CANCER |
| FILE REPRENCE: 5.2945200122 |
| CURRENT APPLICATION NUMBER: US/10/087,192 |
| CURRENT APPLICATION NUMBER: US 09/747,377 |
| PRIOR FILING DATE: 2000-12-22 |
| PRIOR FILING DATE: 2000-12-22 |
| PRIOR FILING DATE: 2000-12-22 |
| PRIOR FILING DATE: 2001-03-02 |
| NUMBER OF SEQ ID NOS: 2059 |
| SOFTWARE: FastERO for Windows Version 4.0 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 65.6%;
Matches 1028; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-10-087-192-1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-087-192-1705
                                                                                                                                                                         1218
                                                                                                         1158
                                                                                                                                                                                                                                         1278
                                                                                                                                                                                                                                                                                                           1338
                                                                                                                                                                                                                                                                                                                                                                                                                                               1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9194
                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                         ઠે
                                                                 g
                                                                                                ઠે
                                                                                                                                 ద
                                                                                                                                                                        Š
                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAAACTGCTTTCGGTACCAGCAGCGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTC 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGIGGCITICCIATITICCAAATAAAGAAGICTAATIGAGCACCGCAAGGIGCACACCAA 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                              437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGAAGTGATTGGCAGCTCTCTTGGCAGTCGAGATGGAGGATGCCTTGTCAATG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                            TGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540 CAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600 CGAGGTCCTCCAGGTGCACGCGGCCGAGAGCATCTCCTTCTCCTTACAAAATCTGCATGGT
                                                                                                                                                                                                                                                                                                                                                                                           320 ATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCTCTTAATGTACATGGAT-GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAGATGGA-GATGCCTTGTCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACATTCAGAAGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAATAAACATGTCTTAATGCAACACCGGCCTACCTCTGTGAACCAGCAGTTCTTCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGGAACCTCCCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGAATTGCAAGGAAAATTAAGCTGTGAGGTATGTGGGGCAGACATTTAGAGTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360 AAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTCACTTACGGGTGTAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTCCTTGCAAAATCTGCATGGT
                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                            3,
                                                                                                                                                                                                                                                                                                                           DB 8; Length 3186;
                                                                                                                                                                                                                                                                                                                                                          28; Indels
                                                                                                                                                                                                                                                         NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REPERENCE/DOCKET NUMBER: 23070-068910
TELECOMMUNICATION INFORMATION:
TELEPRAX: (415) 576-0200
ITELERAX: (415) 576-0200
INFORMATION FOR SEQ ID NO: 10:
SEGUENCE CHARACTERISTICS:
LENGTH: 3186 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                       Query Match 73.4%; Score 1106.2; Best Local Similarity 96.6%; Pred. No. 0; Matches 1150; Conservative 9; Mismatches
                                                                                                                                                                                                                               NAME/KEY: -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                             379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    798
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

10;

유 ઠે ద ઠે g ઠે a ò g

ò

```
10967 GAGAAAGAGAACTAGGGGAAATATGGGTTGGGGGTAAGGCGGAAGGGTCTGGAAAGTCC 11026
                                                                                                                                                                                                                                                                                                     402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 caraaacricresasccaacasccascarresasaaassissessaaaassccccaasas 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                            1 ATGCCGACCCACTCCTCCTCGTGTACATGGACGGCCGGAAGTCCTCAGCAGCTCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACGGCGAAGCGCCCTCCGTGGACGCGGATCCCAAGTTACCCAGTAGCAAGGAGAAGCCC
                                                                                                                                                                                                                             <u> AATAGTGAAGTGCCTTCTGGGGATAGTGACCCCCAAGTTGTCCAGTAGCAAGGAAGAAGCCC</u>
                                                                                                                                                                                                                                                                            1441 ACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTCTTGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103 GCCAGTCCGATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gecreccadaridadegradarearecrereccennadadegecegradeecerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTACACAAAAAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> Trerecadecaderetreretadocodados prerentados acaderio en acaderacidado en acaderacidado en consecuente acadera</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATAAAAGTCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344 ATGCCAACTCAATCCCTCTTAATGTACATGGA-TGGCCAAGAGTGATTGGCAGCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTGCAGCCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35.6%; Score 537; DB 13; Length 31 68.6%; Pred. No. 1.8e-157; Live 3; Mismatches 324; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: MOTEL Bayid W.
APPLICANT: Engelhard Eric K.
TITLE OF INVENTION: ONVEL COMPOSITIONS AND METHODS FOR TITLE OF INVENTION: ACMCER
FILE REFERENCE: 529452000122
CURRENT PELLORION NUMBER: US/10/087,192
CURRENT FILING DATE: 2002-03-01
PRIOR APPLICATION NUMBER: US 09/747,377
PRIOR FILING DATE: 2000-12-22
PRIOR FILING DATE: 2001-03-02
NUMBER OF SEQ ID NOS: 2059
SOFTWARE: PSELSEQ for Windows Version 4.0
SEQ ID NO 1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 1706, Application US/10087192; Publication No. US20020182586A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 35.6
Best Local Similarity 68.6
Matches 834; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      11207 AĞĞĞTĞC 11213
                                                                                                                                                                                                                                                                                                                                                              1501 AGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-087-192-1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-087-192-1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                      1306
                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                   셤
                                                                                                   8 8
                                                                                                                                                                               à
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                          10250 CTCTGCGAGCCAGCTGTCCTGCGTGTGGAGGCCGAGTACCTAAGTCCCCTTGATAAAGCT 10309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCATTGAGCACAGCAAGGTTCACGCCAAAGAAACTGTCCCCCAGTGCCAGCAACGTTGCC 10726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1249 C---AAGAAGTGAAGGAATTGGGGCAAGAAGGAGCACCGACAACGACGATTCGAGTTCC 1305
10907 CAGGAAGAGGTGAAAGACTCAGGCCAAGAAGGAAGCACAGACAAGACACAACATGACGACTCATGCTCA 10966
                                                                                                                                                    10070 ATGGAGGTGGATGATGCTGTGCCCATAAAAGGGCCGGTGGCAGTCCCCTTCCGAGCTGCT 10129
                                                                                                                                                                                                                                                                                                                                                                                                                          10130 CAGGAGAAGAGCATGGCCGTGGCAGAGGGCCACATGCCCCTGGATTGCATGTTCTGCAGC 10189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10550 GGCATGGAG---AGTCCAGTCACCATCAATGAAGTGGTCCAGCCGCACGCCCTGGGAGC 10606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATCCCTCAGCTC 1188
9839 AATATACTCGTCCTCTGACCTT-----AGAGGTGCTCTGATTTTGACACCCAGGG 9889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   888
                                                                                                                                                                                                                                                                                              412 ATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACA 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGTATGTGGGCCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGATGACCACCGAGAGGAACCCACGTCCCCGAGGGAAGAGTTGCTGCAGTTTTTGAAC
                                                                                  9890 CTCTTAGAGGTTCTGAGTGGTGATATCTCACAGGCGCCCTTATTCTAACTGCAGAGATCC
                                                                                                                            CCAACGGAACTTTGAGATTATATGCAATCGA-----AAGTGACAGGAAACATGCCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10430 AAGGACTCCTTCACGTATGGGTGCAGCATGTGCGGGAGAGATTCAAGGAGCCGTGGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTAATTGAGCACCGCAAGGTGCACACCAAAAAACTGCTTTCGGTACCAGCAGCGCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGCCATTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCCGTTCACCACCTACCAGGCATGGCAGTTGGCTACCAAAGGAAAAGTGGCCGTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cregaeccaacaeccaecarregaeaaaagrecceaagaecceaagaerrea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGATECTTECACTTACGGGTGTAACATGTGCGGAAGAAGATGAAGGAGCCTTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTAAAAATCACATGCGGACRCATAATGGCAAATCGGGGCCCAGAAGCAAACTGCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGCCGAGAGC
                                          CTGTTAGAGGGTGAG---TGACAGGTCTTACAGTGGCCTTAATCCAACTCCAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                AAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGA---AAATGAATTTAGCTGT
                                       242
                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          949
                                                                                                                                                                                                                                                                                                                                                                                    472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        889
```

상 임

엄

ò

QQ

ઠે ద ò

õ

g

a

à

g

ò

a

중 점

ð ద ò g 8

ò

ŝ

8 8 8

셤

ઠે

셤

ઠે

g ò 윱

ઠે

셤

Š

셤

ò

g

ઠે

유

ò

g

ò 셤

ઠે

셤

ઠે

원

ò

ઠે

g

ઠે 셤 ò 셤

```
1286 ACAACGACGATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAG 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCTCTCGCAAGAGAAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACG 1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             470 GCCTCTCGCAAGAGAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                           N: EXPRESSED IN LUNG, SIGNAL = 1.6

N: EXPRESSED IN PLACENTA, SIGNAL = 0.96

N: EXPRESSED IN BONE MARROW, SIGNAL = 1

N: EXPRESSED IN BRAIN, SIGNAL = 0.73

N: EXPRESSED IN FETAL LIVER, SIGNAL = 1.3

N: EXPRESSED IN ADULT LIVER, SIGNAL = 0.94

N: SWISSPROT HIT: 075362, EVALUE 2.00e-67

N: THIT: 911421959, EVALUE 0.00e+00

N: EST_HUMAN HIT: BF237807.1, EVALUE 0.00e+00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 16; Length 530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Spaulding, vikki
TITLE OF INVENTION: SECRETED, EXPRESSED SEQUENCE TAGS
NUMBER OF SEQUENCES: 1519
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTITCAGAACCIACCACCAGCIGGICTIGCACTCCAGGGICC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy Disk
COMPUTER: IBM PC Compatible
CORPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTCAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 309
CURRENT APPLICATION NUMBER: US/10/029,386
CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 9711
LENGTH: 530
TYPE: DNA
ORGANISM: Homo sapiens
FRATURE:
OTHER INFORMATION: MAP TO CHR20.3
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.6
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.9
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = OTHER INFORMATION: EXPRESSED IN PETAL LIVER, SIGNAL = OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = OTHER INFORMATION: SWIESSED IN ADULT LIVER, SIGNAL = OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = OTHER INFORMATION: EXTENSION HIT: 075362, EVALUE 0.000+00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14.3%; Score 215.6; DB 1
98.2%; Pred. No. 1.2e-56;
iive 0; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/040,739
FILING DATE: 07-Jan-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Genetics Institute,
STREET: 87 CambridgePark Drive
CITY: Cambridge
STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 520, Application US/10040739 Publication No. US20020173635A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Jacobs, Kenneth
MCCOy, John
LaVallie, Edward
Racie, Lisa
Merberg, David
Treacy, Maurice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 02140
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 98.2
Matches 218; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: U.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-029-386-9711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-040-739-520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 9711, Application US/10029386
Publication No. US20030194704A1
GENERAL INFORMATION:
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: HANZEL: BOY INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
FILE REFERENCE: AEOMICA-X-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGAAAGTCTAATTGAGCACCGCAAGGTGCACACAAAAAAACTGCTTTCGGTACCAGC 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGTTCAACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGCCTGTCAGATGCATC 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTT 1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCATTTGCC---AAGAAGTGAAGAATTGGGGCAAGAAGAAGGAGCACCACACGACGAT 1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCATGCTCAGAGAAAGAGAACTAGGGGAAATATGGGTTGGGGGTAAGGCGGAAGGGTCT 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1018 GGAAAGTCCAAAACAAGTAAAAGCAGTTGTCCAAGGTCTCTCCCAAGACAAAGAAGAAGAAGT 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACATGCTAATAGTGAAGTGCCTTCTGGGGATAGTGACCCCAAGTTGTCCAGTAGCAAG 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTACCACCAGCTGGTC 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             897
                                     759
                                                                                 361 rreadcrereargreresceaeacarreceaerescrirreargreaeaeceaere 420
                                                                                                                                      819
                                                                                                                                                                                   CCTTGGTTTCTTAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGCAAA 879
                                                                                                                                                                                                                                                                   CCGTGGTTCCTGAAGAACCACATGCGGACACACAATGGCAAGTCTGGCACCAGGAGGAAG 540
                                                                                                                                                                                                                                                                                                                                       CTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCG 939
                                                                                                                                                                                                                                                                                                                                                                    657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATGTTGAGATCCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598 CCTGGGAGCATCTCCACGCCCTACAAGATCTGCATGGTCTGCGGGCTTCCTCTTCCCCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACGTTGCCCCTGATGACCACCGAGAGGAACCCACGTCCCCGAGGGAAGATTGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTTGAACTTGAGACCCAGATCAACTGCAGGTAGTACAGTGAAGCCCATGACCTGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCAGCTTGACCCGTTCACCAGCCATGGCAGTTGGCTACCAAAGGAAAAGTG
                                                                                                                                    AGAACACACAAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                            940 GCCGAGAGCATCTCCTTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGGATCCCCAAGTTACCCCAGTAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCAGAGCCTCATTGAGCACAGCAAGGTTCACGCCAAAGAAACTGTCCCCAGTGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCGAGTTCCGAGAGGAGCTTGGAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crecacrcaaecerec 1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
US-10-029-386-9711/c
                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1198
                                  700
                                                                                                                                 760
                                                                                                                                                                                                                                     820
                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                       880
                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1138
```

```
1057 charitecegicadadorgiadecadecerrenceaceracerecresaredadecedae 1116
1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1117 CAGTIGITCAACTIGAGACCAAAAICTCACCTGAAACG-----GGGAAGAAGCCTGTC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chérecerga accrea de cerces de ceses de consecue de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1171 AGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAA 1230
                                                                                                                                                                                    1177 gagcccriggriccrcaagaaccacargaaggcgccccaaggacgacgcagcaagaac 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATAAAGAAAGTCTAATTGAGCACCGCAAGGTGCACCACCAAAAAAACTGCTTTCGGTACC 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 AGGCCCAAGAGTGAGCTGGACCCCA---TCGCCACCATCAACAACGTGGTCCAGGAGGAG 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1294 GTGATCGTCGCCGGCCTGAGCCTCTACGAGGTCTGCGCCAAGTGCGGGAACCTGTTTACA 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: He, Yudong
APPLICANT: He, Yudong
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter S.
APPLICANT: Mao, Mao,
APPLICANT: Nao, He,
APPLICANT: Nao, He,
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Wan de Vijver, Marc J.
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REPRENCE: 9310-188-999
CURRENT APPLICATION NUMBER: US/10/342,887
CURRENT FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: 60/289,918
PRIOR PLILING DATE: 2002-06-18
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
SPRIOR FILING DATE: 2002-06-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   877 AAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                      937 GCGGCCGAGAGCATCTCCTTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1354 AACCTGGACAGCTTGAACGCCCACAATGCCATCCACCGCAGAGAGTCGAGGC---CAGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          697 GAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 103.2; DB 18; Length
Pred. No. 1.3e-20;
3; Mismatches 246; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 1511, Application US/10342887; Publication No. US20040058340A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1231 GGAAWAGTTGCC 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1591 GGTAAGGTGGCC 1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-342-887-1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1057 dagricccgriccadedrareredeccadecerreaceagacerecricaadeceeae 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1410 TCCCAAGTTACCCAGTAGCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTT 1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                757 ATGAGAACACAAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAG 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1350 CTCGCAAGAGAAAGAGAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    697 GAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Van 't Veer, Laura
APPLICANT: Van 't Veer, Laura
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernards, Rene
TITLE CF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-175-999
CURRENT FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-06-14
NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 1511
LENTH: 6033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.8%; Score 103.2; DB 17; Length 6033; 52.7%; Pred. No. 1.3e-20; tive 3; Mismatches 246; Indels 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 13; Length 469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1470 CAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 156.4; DB 1.
Pred. No. 5.2e-38;
0; Mismatches 1
                                                                                                     TELECOMINE Brown, SCOCK A.
REGISTRATION NUMBER: 32,724
TELECOMMUNICATION INCORMATION:
TELEPHONE: (617) 498-8224
TELEPHONE: (617) 498-8224
TELEPHONE: (617) 498-8224
TELEPHONE: (617) 496-5851
INFORMATION FOR SEQ ID NO: 520:
SEQUENCE CHARACTERISTICS:
LENGTH: 469 base pairs
TYPE: nucleic acid
STRANDEDMESS: double
TYPE: nucleic acid
STRANDEDMESS: double
TYPE: CDNA
MOLECULE TYPE: CDNA
SEQUENCE DESCRIPTION: SEQ ID NO: 520:
   APPLICATION NUMBER: 09/036,520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM 014643
DATABASE ENTRY DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1511, Application US/10172118 Publication No. US20030224374A1 GENERAL INFORMATION:
                                             FILING DATE: 03-JUN-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 52.74
Matches 291; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 157; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter
APPLICANT: Mao, Mao,
APPLICANT: Roberts, Chris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-10-172-118-1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-040-739-520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David R.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR GE TITLE OF INVENTION: HUMBER: US/10/029,386
FILE REFERENCE: AEOMICA-X-2
CURRENT APPLICATION NUMBER: US/10/029,386
CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1410
                                                      1117 ATGAAGAAGCACCGGGGCTCCTTCGACCACGGCTGCCACATCTGCGGCCGTAGGTTCAAG 1176
                                                                                                                                                                                1177 GAGCCCTGGTTCCTCAGAACCACATGAAGGCGCACGGCCCCAAGAGGGGCAGGAAGAAC 1236
                                                                                                                                                                                                                                                                                 1294 GTGATCGTCGCCGGCCTGAGCCTCTACGAGGTCTGCGCCAAGTGCGGGAACCTGTTTACA 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAAAGAAAGTCTAATTGAGCACCGCAAGGTGCACACAAAAAAACTGCTTTCGGTACC 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAACG-----GGGAAGAAGAAGTTT10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTGCCTGAACCTGAGGCCGTCGGCGGCCGACTCGTGCCCTGGCACGCAGGCCGGA 1530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1171 AGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAA 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1531 CGGCGGGTGGCTGAGCTGGACCCGGTCAACAGCTACCAGGCCTGGCAGCTGGCCACGCGG 1590
                                                                                                                      876
                                                                                                                      GAGCCTTGGTTTCTTAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCCAGAAGC
                                                                                                                                                                                                                                             AAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCAC
                                                                                                                                                                                                                                                                                                                                                                        GCGCCCGAGAGCATCTCCTCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1354 AACCTGGACAGCTTGAACGCCCCACAATGCCATCCACCGCAGAGTCGAGGC---CAGCCGC
   ATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N: EXPRESSED IN LUNG, SIGNAL = 1.6
N: EXPRESSED IN LUNG, SIGNAL = 0.96
N: EXPRESSED IN BLACENTA, SIGNAL = 1
N: EXPRESSED IN BONE MARROW, SIGNAL = 1
N: EXPRESSED IN FETAL LIVER, SIGNAL = 1.3
N: EXPRESSED IN ADULT LIVER, SIGNAL = 0.94
N: EST HUMAN HIT: W05407.1, EVALUE 1.00e-117
N: SWISSPROT HIT: 075362, EVALUE 1.00e-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.4%; Score 97; DB 16; Length 251;
100.0%; Pred. No. 1.9e-19;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 23411, Application US/10029386
; Publication No. US20030194704A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MAP TO CHR20.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAWAGTTGCC 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1591 ĠĠTÄAGĠŤĠĠĊĊ 1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 97; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: M
OTHER INFORMATION: E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-029-386-23411/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-029-386-23411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 23411
                                                                                                                                                                                                                                             877
                                                                                                                                                                                                                                                                                                                                                                        937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1471
757
                                                                                                                      817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
                                                      g
                                                                                                                                                                    셤
                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                   ጵ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1117 Argaagaagcaccegegerecerceacacacacacacacarecegegegearacara
                                                                                                                                                                          1177 dageceriedricerchanghaechenghandededecheececenhandededechechnane 1236
                                                                                                                                                                                                                                                                                                                                                                                                                           1294 Greancenceceeceneageereraceagerereceageseagesegeagesegeagerererraca 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAAGG-----GGGAAGAAGAGCCTGTC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1471 cherrecercandercerches de contra de la contra 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAA 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1057 GAGTTCCCGTGCGAGGTGTGTGCCAGGCCTTCAGCCAGACCTGGTTCCTGAAGGCGCAC 1116
                                                                                                                                                                                                                                                                                 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and Methods Relating to Breast Specific
                                                                                                                                                                                                                                             AAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAGAACACACAAAAATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAG
                                                                                                                   GAGCCTTGGTTTCTTAAAATCACATGCGGACRCATAATGGCAAATCGGGGGGCCAGAAGC
                                                                                                                                                                                                                                                                                                                                                                    GCGGCCGAGAGCATCTCCTCCTTGCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCTGGACAGCTTGAACGCCCACAATGCCATCCACCGCAGAGTCGAGGC---CAGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 103.2; DB 14; Length E Pred. No. 1.6e-20; 3; Mismatches 246; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: KAITE, KAIDANA
APPLICANT: Cafferkey, Robert
APPLICANT: Cafferkey, Robert
APPLICANT: Liu, Chenghua
TITLE OF INVENTION: Compositions and Methods
TITLE OF INVENTION: Genes and Proteins
TITLE OF INVENTION: Genes and Proteins
TITLE OF INVENTION: Genes and Proteins
CURRENT APPLICATION NUMBER: US/10/074,475
CURRENT FILING DATE: 2001-02-13
PRIOR FILING DATE: 2001-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
US-10-074-475-93
US-10-074-475-93
; Sequence 93, Application US/10074475
; Publication No. US20030092898A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 295
SOFTWARE: Patentin version 3.1
SEQ ID NO 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 6.8%;
Best Local Similarity 52.7%;
Matches 291; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Salceda, Susana
APPLICANT: Macina, Roberto
APPLICANT: Hu, Ping
APPLICANT: Recipon, Herve
APPLICANT: Carra, Kalpana
APPLICANT: Cafferkey, Robert
APPLICANT: Sun, Yongming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAWAGTTGCC 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTAAGGTGGCC 1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 8156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-074-475-93
                                                                                                                                                                                                                                             877
                                                                                                                                                                                                                                                                                                       1237
                                                                                                                                                                                                                                                                                                                                                                    937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1591
                                                                                                                   817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             697
                                         g
                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
ò
                                                                                                             ઠે
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

ö

```
ö
1411 CCCAAGTTACCCAGTAGCAAGGAGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTC 1470
                       251 CCCAAGTTACCCAGTAGCAAGGAGAAGCCCACTCACTCGCGAGTGCGGGAAAGCTTTC 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 4.6%; Score 70; DB 20; Length 70; Best Local Similarity 100.0%; Pred. No. 2.9e-11; Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                RESULT 15
US-10-758-307-110
Sequence 110, Application US/10758307
Publication No. US20040209290A1
GENERAL INFORMATION:
APPLICANT: GENOMIC HEALTH, INC.
APPLICANT: RUSH UNIVERSITY MEDICAL CENTER
APPLICANT: Shak, Steven
APPLICANT: Shak, Steven
APPLICANT: Shak, Steven
APPLICANT: Shak, Steven
TITLE OF INVENTION: GENE EXPRESSION MARKERS FOR BREAST
TITLE OF INVENTION: GENE EXPRESSION MARKERS FOR BREAST
TITLE OF INVENTION: GENE EXPRESSION MARKERS FOR BREAST
TITLE OF INVENTION: CANCER PROGNOSIS
FILE REFERENCE: 30740/0008 US
CURRENT APPLICATION NUMBER: US/10/758,307
CURRENT APPLICATION NUMBER: US 60/440,861
PRIOR FILING DATE: 2003-01-15
NUMBER OF SEQ ID NOS: 440
SEQ ID NO 110
LENGTH: 70
LENGTH: 70
LENGTH: 70
                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Amplicon
US-10-758-307-110
                                    a
                                                                                             ઠે
```

1419 ACCCAGTAGCAAGGAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTA 1478

1 ACCCAGTAGCAAGGAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCAGAACCTA 60

g &

ò

Search completed: June 29, 2005, 12:01:53 Job time : 593.497 secs

us-08-731-499-3.rst

```
DKFZp781N
K-ES70109
DKFZp469L
FOTWART &
RC1-CT026
BP366185
BP266185
BP20047
715904 MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720064 MA
BP201868
PM3-NN117
                                                                   June 28, 2005, 15:06:07; Search time 3243.1 Seconds (without alignments) 17687.639 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BF944766 PM3-NN117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                             1 GCAGGTTGCTGGGATTGACT......GGTCTTGCACTCCAGGGTCC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BX95500
BM84501
CR75352
CR094054
CR094054
BW753609
BW753609
BW750618
BP220947
CC4657791
CC4657791
CC46621068
BP231807
                                                                                                                                                                                                                                 68479088
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                         34239544 segs, 19032134700 residues
                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                               nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP944766
BM855300
BM855300
CR753522
CR094054
AM753609
BP260262
BP20047
CV4697791
CV4697791
CV4697791
CV460210
BP2010868
BP231869
                                                                                                                                                                    IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match Length DB
                                                                                                                     US-08-731-499-3
1507
                                                                                                                                                                                                                                                                                                                                                        gb_est1:
gb_htc:
gb_htc:
gb_est43:
gb_est6:
gb_est6:
gb_gs81:
                                                                                                                                                                                                                                                                                                                                              EST:*
                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             389
376.2
359.2
343.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557.4
529.6
436.6
434.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            394.4
                                               OM nucleic
                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                              Sequence:
                                                                                                                                                                                                          Searched:
                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UU
```

CA789554 AGENCOURT CB548508 AMGNNUC:M CA981247 AGENCOURT AL595898 CR127300 CR127300 Forward 8 AA646529 ve41c05.r BP675362 BP675362 AI467614 ve41c05.x BJ031636 BJ031636 BJ031244 BAGENCOURT BB617224 BB617224 AK030249 MUS mUSCU BKS64767 BKS64767 BY206008 BY206008 BY207082 BY20608 BY207082 BY207082 BY207082 BY207082 BY207082 BY207082 BY207082 BY207082 CA752347 UI-M-F00-CB523347 UI-M-F00-CB523347 UI-M-F00-	BF944766 BF944766 BF944766 BF944766.1 GI:12362041 BF9744766.1 GI:12362041 BF974766.1 GI:12362041 BF974766.1 GI:12362041 BF974766.1 GI:12362041 BF9747043, Metazoa, Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 595) Dias Neto, E., Garcial Correa, R., Verjovski-Almeida, S., Briones, M. R., Magai, M.A., da Silva, W. Jr., Zago, M. A., Bordin, S., Costa, F. F., Goldman, G. H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D. H., Brunnetein, A., deoliveira, P., Matsukuma, A., Baia, G.S., Simpson, D. H., Brunnetein, A., Soares, F., Brentani, R. R., Reis, L. F., de Souza, S. J., and O' Hare, M.J., Soares, F., Brentani, R. R., Reis, L. F., de Souza, S. J., and	Simpson, A.J. Shotgun sequencing of the human transcriptome with ORF expressed sequence tags Brode. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000) 20202663 10737800 CONTACT: Simpson A.J.G. Laboratory of Cancer Genetics Ludwig Institute for Cancer Research Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP, Razzil	Tel: +55-11-2704922 Fax: +55-11-27004922 Email: asimpson@ludwig.org.br This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=PM3&t2=PM3.NN1174- 181000-001-c08&t3=2000-10-18&t4=1) Seq primer: puc 18 forward High quality sequence stop: 585. Location/Qualifiers 1595 /organism="Homo sapiens" /mol_Lype="mRNA" /db xref="taxon:9606" /dev_stage="Adult" /clone_lib="NN1114" /clone_lib="NN1114" /note="drayan: nervous normal; Vector: puc18; Site_1: Smal; Site_2: Smal; A mini-Ilibrary was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application
CA789554 CB548508 CA981247 AL595898 CRL27300 AA646529 BP675362 AP0701636 BP071636 CA752347	ALIGNMENTS 595 bp 1-c08 NN1174 H 041 Chordata, Cran Primates, Cata (Oorrea,R., Ve W. Jr., Zago, ho,A.F., Matsu elra, P.S., Buc	Sci. U.S.A. 97 Sci. G.S.A. 97 .J.G. er Genetics or Cancer Reser	Tel: +55-11-2704922 Fax: +55-11-2707001 Email: asimpson@ludwig.org.br This sequence was derived from the Project. This entry can be seen in (http://www.ludwig.org.br/scripts/ 181.000-001-008£13=2000-10-18£4=1) Seq primer: puc 18 forward High quality sequence stop: 585. Location/Qualifiers 1595 /organism="Homo sapiens" /db xref="haxon:966" /dev_stage="Adult" /clone_lib="RNN174" /clone_lib="RNN174" /clone_lib="Corganism: nervous not site_2: Smal; A mini-libb derived from ORESTES PGG
0 0 0 H 0 H 0 H 1 1 H 1 1 1 1 1 1 1 1 1	-000 362 a; (as; (cia 10a; (cia 11va	B S S S S S S S S S S S S S S S S S S S	222 uddw ry de 88200 9900 April 11 from 11
884 477 647 618 818 818 735 603 603 672 872 342 341 342 341 342 341 342 342 342 342 342 342 342 342 342 342	7766 1766.1 GI:12362 1766.1 GI:12362 17891 Bapiens (human) 18191 Butheria; 1819.1 Butheria; 1819.2 Butheria; 1819.3 Butheria; 1819.3 Butheria; 1819.4 Metazoa; 1819.8	Simpson, A.J. Shotgun sequencing sequence tags Proc. Natl. Acad. 8 20202663 10737800 Contact: Simpson A Laboratory of Canco Ludwig Institute fo Rua Prof. Antonio 1 Brazil	11-27049 11-27049 11-27070 11-27070 11-27070 11-2708 1
000000000000000000000000000000000000000	BF944766 PM3-NN174-1 BF944766.1 EST. EST. HOMO SADIENS HO	pson, A., tgun se uence t c. Natl 02663 37800 tact: S oratory wig Ins Wrig Ins	: +55-1 : +55-1 : +55-1 : as as as is as as is as as is as as is as as as is a as as is as
178.6 160.2 159.1 179.1 130.2 130.2 130.2 111.4 114.8 111.1 111.1 104.2 104.2	BF944 BF944 BF944 BF944 BF944 BF944 BF94 BBB94 BURN MAMME MA	Simpso Shotgu Bequen Proc. 202026 107378 Contac Labora Ludwig Rudwig	
600	SS SON	388	RES
0 000000000000000000000000000000000000	RESULT 1 BP944766 LOCUS DEFINITION ACCESSION VERSION VERYWORDS SOURCE ORGANISM REFERENCE	TITLE JOURNAL MEDLINE PUBMED COMMENT	FEATURES
	Z ÖZŞŞZÖ Z		Ē.

zml0bl0.r RC1-CI011 AST-2P596 aa85e10.8 RC1-CI011 AJ7341 EST5631 h ve41c05.y CR432863

AA069107 BF803316 AZ537566 AA451924 BF803309 AJ752996 CR432863

289.6 285.6 262.8 243.4 226 226

υ υυ

18 119 22 23 24 24

AJ743841 CD689109 AI552996 CR432863

AA069107 BF803316 AZ537566 AA451924 BF803309

N

DRIGIN

g

ઠે

셤

à

g

ઠે

엄

ઠે

요 ò g

ò

g ò 요

ò

유

ઠે

셤

ò

```
/mol trype="mmna" corrections of the corrections of
Research Center (DKFZ); Email s.wiemann@dkfz- heidelberg.de; sequenced by AGOWA (Berlin/Germany) within the cDNA sequencing consortium of the German Genome Project.

No al sequence available.
This clone (DKFZp781N0270) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcencentrum, Heubnerveg 6, 14059 Berlin-Charlottenburg, GERWANY; Email: clone@rzpd.de.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGCAGTTCTTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 TGAAAGGACCGCTGTTCTTCCATTCCGAGCTACAAGAAAAAATGTC-ATCCAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 GAGGGGTATATGCCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACATTCAGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAAGGGGAACAGAACCTCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACAGAACCTCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGGCAGACATTTAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTTTTGATGTTGAGATCCACATGAGAACACACAAAAGATTCTTTCACTTACGGGTGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 ATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACACATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 GGCAAATCGGGGCCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACGAGGTCGTCCAGGTGCACGCCGAGAGCATCTCCTCCTTGCAAAATCTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377 GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATGGA-GATGCCTTGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 GGCCAGAAGTGATTGGCAGCTCTTTGGCAGTCCGATGGAGATGGAGGATGCCTTGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCACACATTCAGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
37.0%; Score 557.4; DB 5;
Best Local Similarity 95.8%; Pred. No. 2.3e-154;
Matches 592; Conservative 1; Mismatches 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                                                                           organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTGTGGCTTCCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTGTGGCTTCCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM834501
LOCUS
                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                     of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          618 bp mRNA linear EST 01-MAR-2004
DKFZp781N0270 r1 781 (synonym: hlcc4) Homo sapiens cDNA clone
BKFZp781N0270 5', mRNA sequence.
                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                    674
                                                                                                                                                                                                                                                                                                                                                                                              734
                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      al.)
                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 618)
Wambutt, R., Heubner, D., Mewes, H.W., Weil, B., Amid, C., Osanger, A., Fobo, G., Han, M. and Wiemann, S.
EST (Mambutt, R., Heubner, D., Mewes, H.W., Weil, B., Amid, C., et al.)
Unpublished (2003)
        No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription tissue mRNA and CDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany
This is the 5' sequence of the clone insert
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cectriticaterreagarceacargaacacacaaagarretricactracegerera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACACATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTTTGTGGCTTCCTATTTCCAAATAAAGAAAGTCTAATTGAGCACCGCAAGGTGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACGAGGTCGTCCAGGTGCACGCCGAGAGAGCATCTCCTCCTTGCAAAATCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACGAGGTCGTCCCAGGTGCACGCGGCCGAGAGCATCTCCTTTACAAAATCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCTCGAGGGAGGACTTCCTGCAGTTGTTCAACTTGAGACCAAAATCTCACCCTGAAAC
                                                                                                                                                                                                                                                                                    GGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAA
                                                                                                                                                                                                                                                                                                                                        GGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACTCCCCAA
                                                                                                                                                                                                                                                                                                                                                                                              GGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Greenesagadentrecracastraneaacridadaceaaaarereaceaaaae
                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGAAGAAGCCTGTCAGATGCATCCTCAGCTCGATCCGTTCACCACCTTCCA 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGAAGAGCCTGTCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCAA
                                                                                                                                                                                                                              ö
                                                                                                                                                                           Length 595;
                                                                                                                                                                                                                              Indels
                                                                                                                                                                              4
                                                                                                                                                                     Score 590.4; DB 4;
Pred. No. 3.3e-164;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BX955300.1 GI:43437635
                                                                                                                                                                        39.2%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens (human)
                                                                                                                                                                                                                           Matches 591; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: MIPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1155
                                                                                                                                                                                                                                                                                                                                        ч
                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                    615
                                                                                                                                                                                                                                                                                                                                                                                              675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          735
                                                                                                                                                                           Query Match
                                                                                                                                                                                                    Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
BX955300
```

3

Gaps

435

61

120

495

180

615 240

555

675

300

735 360 795 480

915 540 900

855

```
CR753532 S71 bp mRNA linear EST 01-SEP-2004 DKFZp469L046_rl 469 (synonym: pkidl) Pongo pygmaeus cDNA clone DKFZp469L046_5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tingolstaedter Landstr.1, D-85764 Neuherberg, Germany
This is the 5' sequence of the clone insert. Clone from S. Wiemann,
Molecular Genome Analysis, German Cancer Research Center (DKFZ);
Email s.wiemannackfz-heidelberg.de; sequenced by Agowa
(Berlin/Germany) within the cDNA sequenced by Agowa
(Berlin/Germany) within the cDNA sequencing consortium of the
German Genome Project. This clone (DKFZp64891046) is available at
the RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH in
Berlin, Germany. Please contact RZPD for ordering:
http://www.rzpd.de/cgi-bin/products/cl.cgi?CloneID=DKFZp469L046
Further information about the clone and the sequencing project is
available at http://mips.gsf.de/projects/cdna/.
Location/Qualifiers
                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                 421 TGTC-ATCCAAATCGAGGGGTATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCA 479
                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                             480 CACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAAC 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540 cagcagricricgegrigaagcagagrarcrcagrccgcrigaraaagrcaagrgcgaa 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="469 (synonym: pkid1)"
/note="Vector: pSport1_Sfi; Site_1: SfilA; Site_2: SfilB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pongo pygmaeus (orangutan)
Pongo pygmaeus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butheria;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Pongo.

(bases 1 to 571)
Wambutt, R., Heubner, D., Mewes, H.W., Weil, B., Amid, C., Osanger, A., Pongo pygmaeus mRNA (Wambutt, R., Heubner, D., Mewes, H.W., et al.)
Unpublished (2004)
241 GGAACTTTGAGATTATATGCAATGGAAAGTGACAGGAAACATGCCAACTCAATCCCTCTT
                                                                                                                                                                                                                              TGTCAATCCAAGGGAATATGCCCTTGGATTGCATGTTCTGCAGCCAGACCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                        CACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCCTCTGTGAAC
                                                                                   364 AATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTCTTGCCAGTCCGATGGAGATGGA
                                                                                                                                                                                       423 -GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 436.6; DB 7; Length 571; Pred. No. 2.5e-118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600 CAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTT 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            662 CAGAACCTCCCAAGGAAAGAATTGCAAGGAAAATGAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Pongo pygmaeus"
/mol_type="mRNA"
/db_xref="taxon:9600"
/clone="DKFZp469L046"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tissue_type="kidney"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR753532.1 GI:51845942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29.0%;
92.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: MIPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                    482
                                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR753532
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PEATURES
                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Organ: Stonach; Vector: pME18-FL3; Site 1: XhOI; Site 2: XhOI; The poly (A)+ RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including Sfil site by treatment of T4 RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil oligo-dT primer. After first strand synthesis, RNA was degraded by NaOH treatment and cDNA was amplified by PCR reaction. The PCR products were digested with Sfil and cloned into DraIII- digested pME185-FL3 vector. The obtained cDNA vectors were used for transformation of competent cells B. coli ToplOF' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 640)
1 (bases 1 to 640)
1 (bases 1 to 640)
1 (bases 2 to 640)
2 (bh.K.J., Chon, Y., Oh.J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGGACTAT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187 ACACTITICATITICAACTITITATAATAATATITIGCICIGG-TITITGGAACCCCAGGACTGT 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246 TAGA-GGGTGAGAGAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGCCCAAC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           304 GGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCCCTCTT 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67 IGCTITIGIGCIGATICATATITIGAATCGAGGCATIGGGAACCCTGTATGCCTTGTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 recrirerecrearicararireaarceaeccarreesaacccrerareccirrigir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGGACTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ACACTTTCTTTTGAACTTTTATAATATATTTTGCTCTGGTTTTTTGGAACCCAGGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 TAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                       Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Ecoun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 529.6; DB 4;
Pred. No. 4.6e-146;
0; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="Stomach"
/cell_type="Lymphoblast-like"
/cell_line="SNU-1"
/lab_host="ToplOF""
/clone_lib="S11SNU1"
                                                                                                                                                                                                                                                                                                 Kim, Y.S.
21C Frontier Korean BST Project 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S11SNU1-63-D04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: yongsung@mail.kribb.re.kr
Plate: 63 row: D column: 04
High quality sequence stop: 640.
Location/Qualifiers
                              BM834501
BM834501.1 GI:19190910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35.1%;
95.2%;
                                                                                                         sapiens (human)
                                                                                                                                                                                                                                                                                                                                                      Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 610; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sex="M"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .640
        nRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                        Homo sapiens
                                                                                                                  Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
```

a ઠે 요 ઠે 셤 ઠે 요 ä

```
EST 28-APR-2000
mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1109 ACTICCIGCAGIIGIICAACIIGAGACCAAAAICICACCCIGAAACGGGGAAGAGCCIG 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATTICCAAATAAAGAAAGICTAATIGAGCACCGCAAGGIGCACCCCAAAAAAACIGCIT 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                               808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          777
                                                                                                                                                                                                                                                                                                                                                                                      748
                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            988
                             391
                                                                                      451
                                                                                                                   120
                                                                                                                                                511
                                                                                                                                                                                                         571
                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                            691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658 retreccaaaraageageagectearreageageaageareageareagecaaagaaacrere 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1169 TCAGATGCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTAC 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             895
                             332 GIGACAGGAAACAIGCCAACICCAAICCCICTIAAIGIACAIGGAIGGCCAAGAGIGAIIG
                                                                                                                                                                                                                                                                                                241 TGCTGCAGCACCGGCCCACCCTCTGCGAGCCAGCTGTCCTGCGTGTGGAGGCCGAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                    718 ccadigecadecadedrigececerdargaccaceadagagaaccacadereeedagaad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        778 AGTIGCTGCAGTITITIGAACTIGAGACCCAGATCAACTGCANGTAGTACAGTGAAGCCCA
                                                                                                          TGTCAATTCCGAGCTACACAAAGAAAAAATGTCAATCCGAATCGAGGGGAATATGCCCT
                                                                                                                                                                           cagreceerreciagerecircadeadadadearegeeceregeadadeeceaearecee
                                                                                                                                                                                                         TGGATTGCATGTTCTGCAGCCAGACCTTCACACTTCAGAAGACCTTAATAAACATGTCT
                                                                                                                                                                                                                                                                                                                                                      A---AAATGAATTTAGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                               AGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATTCAAGGAGCCTTGGTTTCTTAAAATCACATGCGGACRCATAATGGCAAATCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGAAGCAAACTGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccaggagcaagcircagcaaggcargaag---agrccagrcaccarcaargaagrgcrcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGIGCACGCGGCCGAGAGCATCTCCTTCCTTGCAAAATCTGCATGGTTTGTGGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598 AGCCGCACGCCCCTGGGAGCATCTCCACGCCCTACAAGATCTGCATGGTCTGCGGCTTCC
                                                         1 Greenrescaecareceaeceaeceaerecerecrescareaeaeeeeeeaeeree
                                                                                       GCAGCTCTCTTGCCAGTCCGATGGAGATGGAGATGCCTTGTCAATGAAAGGGCCCNCTGT
                                                                                                                                                                                                                                                                    TAATGCAACACCGGCCTACCCTCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATC
                                                                                                                                                                                                                                                                                                                             TCAGTCCGCTTGATAAAGTCCAAGTGCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGG
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             569 bp mRNA linear
RC1-CT0268-060100-013-h08 CT0268 Homo sapiens CDNA,
AW753609
 Mismatches 270; Indels
 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AW753609.1 GI:7668541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
 620; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST.
                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1049
                                                                                                                                               452
                                                                                       392
                                                                                                                                                                                                         512
                                                                                                                                                                                                                                                                    572
                                                                                                                                                                                                                                                                                                                                                                                                                                               749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                               632
                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                      692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
AW753609/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                    g
                                                                                                                g
                                                                                                                                                                         g
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                       ઠે
                                                                                                                                             ઠે
                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR094054

CR094054.1 GI:49827883

SGSS; genome survey sequence; MICER.

Mus musculus (house mouse)

IISM Mus musculus (hordata; Craniata; Vertebrata; Euteleostomi;

Mus musculus (hordata; Rodentia; Sciurognathi; Muridae; Murinae; Musculus (hoses I to 805)

INCE I (bases I to 805)

IORE Adams, D.J. Biggs, P.J., Cox, A.V., Davies, R.M., van der Weyden, L., Jonkers, J.; Smith, J., Plumb, R.W., Taylor, R.G., Nishijima, I., Yu, Y., Rogers, J. and Bradley, A. Rogers, J. and Bradley, A. Burect Submitted (20-FEB-2004) Sanger Centre, Hinxton, Cambridgeshire, CBIO 1SA, UK. http://www.sanger.ac.uk/MICER

Location/Qualifiers

"TRRS"

"TRRS"

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR094054 linear GSS 05-JUL-2004 Forward strand read from insert in 5'HPRT insertion targeting and chromosome engineering clone MHPN19116, genomic survey sequence.
 9
                              115
                                                                                      175
                                                                                                                   120
                                                                                                                                               234
                                                                                                                                                                            180
                                                                                                                                                                                                         292
                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                    352
                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                               530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                             411
                                                                                                                                                                                                                                                                                                                                                                                     ATGGAGATGGA-GATGCCTTGTCAATGAAAGGCCCNCTGTTGTCAATTCCGAGCTACAC 470
                                                         9
                                                                                                                                                                                                                                                                                                                                           CAAGAAAAAAATGTC-ATCCAAATCGAGGGTATATGCCCTTGGATTGCATGTTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGACCTTCACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCCGGCCTAC
                                                                                       CCTTGTTTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGT
                                                                                                                                                                           121 TAGAGGACTATACGCTTTCTTTGAACTTTTATAATAATATTTGCTCTGGTTTTCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGAGATGGAGGACGCCATGTCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACG
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGAAAAAATGTCAATCCGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGACCTTCACACATTCAGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTAC
                              AAGAGCACTAATGCTTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATG
                                                         AAGAGAACTAATGCTTTGTGCTGATTCATATTTGAATCAAGGCATTTGGGGAGCCTGTATG
                                                                                                       CCGTGTTTGTGGAAAGAACCAGTGACACCACCACTGAGCTTCCTAAAAGTTCGAAGAAGT
                                                                                                                                                CCCAGGACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGA
                                                                                                                                                                                                                                     AATTCCCCAACGGAACTTTGAGATTATATGCAATCAAAAGTGACAGGAAACATGCCAACT
                                                                                                                                                                                                                                                                                                                               CAATCCCTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTTGCCAGTCCG
                                                                                                                                                                                                                                                                    AATTGCCCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACT
 Gaps
 . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 895;
 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 434.4; DB 9;
Pred. No. 1.3e-117;
 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCTGTGAACCAGCAGTTCTTCGGGTTGAAG 622
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/clone="MHPN19116"
/clone_lib="WHPN"
 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.8%;
69.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
 526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                               471
                                                         Н
                                                                                       116
                                                                                                                                                                                                                                                                                                                                                                                      412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                             98
                                                                                                                                               176
                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   591
                                                                                                                  61
                                                                                                                                                                                                                                                                    293
                                                                                                                                                                                                                                                                                                                             353
                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
CR094054
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                              8
                                                  셤
                                                                                                          q
                                                                                                                                             ò
                                                                                                                                                                      g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                         જે
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                    8
```

S

91

```
BP366185 Sugano cDNA library, fetal lung fibroblast TIG Homo BP366185 Sugano cDNA library, fetal lung fibroblast TIG Homo sapiens cDNA clone TIR09337, mRNA sequence.
  210 GGTGTGACATGTGCGGTAGAAGATTTAAGGAGCCTTGGTTTCTTAATAATCACATGCGGA 151
                                                                                                                                                                   908 CAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGCATCTCCTTCC-TTGCAAA 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                        848 CRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAG 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 CAGGTIGCIGGGAIIGACTICTIGCICAATIGAAACACICATICAAIGGAGACAAAGAGA 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253 ACTATACACTTTCTTTTGAACTTTTATAATAATATTTGCTCTGGTTTTTTGGAACCCAGG 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryotani Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases I to 585)

Suzuki, Y., Yamaahita, R., Shirota, M., Sakakibara, Y., Chiba, J.,

Mizushima-Sugano, J., Nakai, K. and Sugano, S.

Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions

Genome Res. 14 (9), 1711-1718 (2004)
                                                                                                                                                                                             90 CCACGATCAACGAGCTCGTCCAGGTGCACGCGGCCGAGAGCAGCGCCTCTCCGTTACCAA 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="TIR09337"
/tissue_type="lung"
/cell_type="fibroblast"
/cell_line="TIG"
/dev_stage="fetal"
/clone_lib="Sugano cDNA library, fetal lung fibroblast
TIG"
                                                                                                 2 CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Department of Virology
Institute of Medical Science, University of Tokyo
Harizokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@img.u-tokyo.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 585;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26.6%; Score 401; DB 5; 93.8%; Pred. No. 1e-107; ive 0; Mismatches 26
                                                                                                                                                                                                                                                          967 ATCTGCATGGTTTGTGGCTTCCTATTTCCA 996
                                                                                                                                                                                                                                                                                       30 ATCTGCATGGTTCCGTGCTTCCTAGTTCCA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP366185.1 GI:52296435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                     BP366185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                      Š
                                                                                                           셤
                                                                                                                                                    ઠે
                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/de_taxon:9606"
/dev_stage="Adult"
/clone_lib="CT0268"
/note="Torgan: colon; Vector: pucl8; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
1 (bases I to 569)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.
                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=RC1&t2=RC1-CT0268-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  569 TGTCCATGAAAGGGACCGCTGTTGTTCCATTCCGAGCGACACAAGAATAAGATGTC-ATC 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAAGACCTTAATAAACATGTCTTAATGCAACACCGGCCTACCC-TCTGTGAACCAGCAG 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAAC 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAAC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCCAAGGAAAAGAATTGCAAGGAAATGAATTTAGCTGTGAGGTATGTGGGCAGACAT 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACG 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGA 847
                                                                                                                                                                                                                                                                                                      Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                 Shorgun sequencing of the human transcriptome with ORF expressed sequence tags
Proc. Dratl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCCAAGGAAAAGAATGGCAAGGCAAATGAATTTAGCTGTGAGGTATGTGGGCAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTAGAGTCGCTTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCGGTCACTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAATCGAGGGAATATGCCCTTGGATTGCATGTTCTGCA-GCCAGACCTTCACACATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACACAAAGAAAAAAATGTCAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 434.2; DB 2; Length 569;
Pred. No. 1.3e-117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: puc 18 forward
High quality sequence start: 49
High quality sequence stop: 67.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tch 28.8%; al Similarity 89.5%; 510; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                     10737800
                                                                                                                                                                                                                                                                                                                                                                                                       Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                             MEDLINE
PUBMED
                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
```

셤 ò 셤 ò g ò g ઠે 요 ሯ 쉽 ठ

ë

61

121

192

252

417 525

405

```
Enkaryota Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 583)
Suzuki, Y., Yamashita, R., Shirota, M., Sakakibara, Y., Chiba, J.,
Mizubima-Sugano, J., Nakai, K. and Sugano, S.
Sequence comparison of human and mouse genes reveals a homologous
block structure in the promoter regions
Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
Institute of Medical Science, University of Tokyo
Email: yauzukidelma: winatoku, Tokyo 108-8639, Japan
Email: yauzukidelma: winatoku, Tokyo 108-8639, Japan
Email: yauzukidelma: winatoku, Tokyo 108-8639, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 15-SEP-2004
                                                                                                                                                                                                                                                                  BP229047
BP229047 Sugano cDNA library, fetal brain Homo sapiens cDNA clone
                                                                                                                     406 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACTGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 ACTGTTAGA-GGGTGAGGGGCTTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                         346 GCTGTTAGAGGGGGGAGTGAGTGAGAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC
                                                                                             CCAACGGAACTTTGAGATTATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                       CTCTTAATGTACATGGAT-GGCCAAGAGTGGTTGGCAGCTCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                             466 CTCTTAATGTACATGGATGGGCCAGAAGTGATTGGCAGCTCTCTTGGCAGTCCGATGGAG
                                                                                                                                                                                                                                                ATGGA-GATGCCTTGTCAATGAAAGGCCCCNCTGTTG-TCAATTCCGAGCTACACAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166 TCTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 226 TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182 ACTATACACTTTCTTTTGAACTTTTAATAAATATTTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="brain"
/dev_stage="fetal"
/clone_lib="Sugano_cDNA_library, fetal_brain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 583;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 389; DB 5;
Pred. No. 4e-104;
0; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="FBR01825"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FBR01825, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP229047
BP229047.1 GI:52101957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tch 25.8%; al Similarity 96.4%; 461; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1, .583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 461; Conserv
                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                  586 AAAAA 590
                                                                                                                                                                                                                                                                                                                              476 AAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST.
                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N
                                                                                                                                                                       359
                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
BP229047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                 셤
                                                                                                                       g
                                                                                                                                                                     δ
                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                           ઠે
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                    598 bp mRNA linear EST 17-SEP-2004 BP270262 Sugano cDNA library, small intestine Homo sapiens cDNA clone KAR01734, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                     372
                                                                           358
                                                                                                               432
                                                                                                                                                     417
                                                                                                                                                                                                                              ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTGTCAATTCCGAGCTACAAAGAA 476
                                                                                                                                                                                                                                                      165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTATACACTTTCTTTTGAACTTTTATAATAAATATTTGCTCTGGTTTTTGGAACCCAGG 345
                                                                                                                                                                                         CTCTTAATGTACATGGGTGGCCAGAAGTGATTGGCAGCTCTTTGGCAGTCCGATGGAG 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Suzuki,Y., Yamashita,R., Shirota,M., Sakakibara,Y., Chiba,J., Mizushima-Sugano,J., Nakai,K. and Sugano,S. Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions Genome Res. 14 (9), 1711-1718 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 598)
                         313 GCTGTTAGAGGGGTGAGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC
                                                                                               CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCTTTCAATGGAGACAAGAGA
                                                                           CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                     CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTGCCAGTCCGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTATACACTTTTTGAACTTTTATAATATATTTGCTCTGG-TTTTGGAACCCAGG
ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue type="small intestine"
/clone Tib="Sugano cDNA library, small intestine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Department of Virology
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26.2%; Score 394.4; DB 5; 96.3%; Pred. No. 9.8e-106; iive 0; Mismatches 12;
                                                                                                                                                                                                                                                                                                        477 AAAAATGTCAATCCGAATCGAGGGGAATATGCCC 510
                                                                                                                                                                                                                                                                                                                                          AAAAATGTC-ATCCAAATCGAGGGTATATGCCC 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="KAR01734"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP270262.1 GI:52219609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 96.3
Matches 467; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST
                                                                                                                                                                                           433
                                                                                                               373
                                                                                                                                                     359
                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                                553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
BP270262
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à 8
                             g
                                                                                                       g
                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                         8
                                                                                                                                               ઠે
                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

9

165 121 225 181 285 240

q ठे g

윱 ò g

ઠે 셤

ઠે

```
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 594)

Dias Neto, B., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Brunstein, A., de Oliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                973 ATGGTTTGTGGCTTCCTATTTCCAAATAAAGAAAGTCTAATTGAGCACCGCAAGGTGCAC 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA linear EST 28-SEP-2004
Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                           240
                                            675
                                                                                                  121 GTCGAGGCGGAGTATCTCAGCCCTCTGGATAAAGTCCAGGTGCGCAGCGAGCTCCCAAG 180
                                                                                                                                                              732
                                                                                                                                                                                                                                                                                    792
                                                                                                                                                                                                                                                                                                                                             241 GTGGCTTTCGACGTCGAGATCCACATGAAGAACACAAGGACTCGTTCACGTACGGGTGT 300
                                                                                                                                                                                                                                                                                                                                                                                                            852
                                                                                                                                                                                                                                                                                                                                                                                                                                            301 CACATGTGCGGCGGCGGTTCAAGGAGCCCTGGTTTCTGAAGAATCACATGCGGACGCAC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           913 ATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGGCATCTCCTCCTTGCAAAATCTGC 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  853 AATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGAGTAGTCCAGCAACG 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 Accedenational de la Accedentación de la A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538 ACCAAAGAAGCTGCTTCCGGGCCCCGTGGCCCGCAGATCGAAGCCCCACAGGAAAGCATG 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. http://www.ludwig.org.br.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Simpson,A.J.
Shotgun sequencing of the human transcriptome with ORF expressed
                                         GTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAACAGAACCTCCCAAG
                                                                                                                                                                                                                       181 GACAAGAGCTGCAAGGAGAACGAAGAGCTGGGGTGTGAAGTGTGCGGGCAGACGTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                            793 AACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTTAAAAATCACATGCGGACRCAT
                                                                                                                                                              GAAAAGAATTGCAAGGAAAATGAA---TTTAGCTGTGAGGTATGTGGGCAGACATTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCACTTACGGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGTCCTCGAGGGAGTTCCTGCAGTTGTTCAACTTG 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598 crerceceseseseseseseseses 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CV409050 594 bp RC1-HT0268-090500-017-c10 HT0268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CV409050
CV409050.1 GI:52804553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1093
                                            919
                                                                                                                                                              9/9
                                                                                                                                                                                                                                                                                    733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
CV409050/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                            셤
                                                                                                                                                           ઠે
                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Single pass sequencing. Bases called with phred v0.020425.c and trimmed with the aid of the trim_alt option. Vector identified with cross match v0.990329.

Plate: FQT8073 column: 4
Seq primer: GTAATACGACTATAGGG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 636)
Smith, T.P.L., Roberts, A.J., Echternkamp, S.E., Chitko-McKown, C.G.,
Wray, J.E. and Keele, J.W.
A second set of bovine ESTs from pooled-tissue normalized libraries
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST 26-MAR-2003
298
                                                                                                                                                              405
                                                                                                                                                                                                                    CCAACGGAACTITGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC 358
                                                                                                                                                                                                                                                                                    465
                                                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTTAATGTACATGGATGGCCAGAAGTGATTGGCAGCTCTTGGCAGTCCGATGGAG 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGA-GATGCCTTGTCAATGAAAGGGCCCNCTGTTG-TCAATTCCGAGCTACACAAA 473
                                                                                                                                     GCTGTTAGAGGGGTGAGTGACAAGTCTTACAAGTGGCCTTATTCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                                                                          CTCTTAATGTACATGGAT-GGCCAAGAGTGATTGGCAGCTCTTTGCCAGTCCGATGGAG
                                                                                               ACTGTTAGA-GGGTGAGGTGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC
                                                                                                                                                                                                                                                                                 ccaacegaactricagartarareccaarccaaagreacaggaaacareccaactrcaarec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /_clone_non_close_non_non_close_non_close_non_close_not;
/note="Vector: pcDNA3.1; Site_1: EcoR1; Site_2: NotI;
Library made with RNA pooled from multiple tissues
including liver, lung, hypothalamus, pituitary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         556 CTTAATAAACATGTCTTAATGCAACACGGCCTACCCTCTGTGAACCAGCAGTTCTTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGGGAATATGCCCTTGCATTGCATGTTCTGCAGCCAGACCTTCACACATTCAGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GAGGGGTGCATGCCCCTGGACTGCATGTTCTGCAGTCAGAGCTTCACGCGCGCTCCGAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CB45/791 636 bp mRNA linear 715904 MARC 6BOV Bos taurus cDNA 5', mRNA sequence. CB45/791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NB 68933-0166, USA
TTE1: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.0%; Score 376.2; DB 6; 76.4%; Pred. No. 2.7e-100; tive 1; Mismatches 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: smith@email.marc.usda.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CB457791.1 GI:29264173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 25.0
Best Local Similarity 76.4
Matches 488; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Вов
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                      466
                                                                                                  241
                                                                                                                                                        346
                                                                                                                                                                                                                    299
                                                                                                                                                                                                                                                                             406
                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
CB457791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

g 8 셤

ઠે

```
A second set of bovine ESTB from pooled-tissue normalized libraries
L Unpublished (2003)
Contact: Smith TPD
CONTACT: ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4330
Email: smith@email.marc.usda.gov
Email: smith@email.marc.usda.gov
Single pass sequencing Jases called with phred v0.020425.c and
single pass sequencing file trim_alt option. Vector identified with
cross march v0.990329.
Plate: FQY8073 row: A column: 4
Seq primer: TAGAAGGCAAGTCAAGG.
Seq primer: TAGAAGGCAAGTCAAGG.
Seq primer: TAGAAGGCAAGTCAAGG.

Location/Qualifiers
urce
L. 662
L. 1. 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAAWAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTGTGAGGTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGA-TCCACATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGTTTCTTAAAAATCACATGCGGACRCATAATGGCAAAATCGGGGGCCCAGAAGCAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGCCCGGCCTGGAG---AGCCCGGCGACCATCAACGAGGTGGTGCAGGAGCCCGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGAGAGCATCTCCTTCCAAAATCTGCATGGTTTGTGGCTTCCTATTTCCAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    424 CGAGGCCTCTCCTCGCCGTATAAGATATGCATGGTCTGCGGCTTTCTGTTTCCAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAAAGTCTAATTGAGCACCGCAAGGTGCACACCAAAAAAACTGCTTTCGGTACCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364 agaaagrereareareaceaaagareeacacaaagaagereereeree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCGCAGACAGACTCTCCACAAGGAGGAATGCCGTCCTCGAGGGAAGGACTTCCTGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTCAACTTGAGACCAAAATCTCACCCTGAAACGGGGAAGAAGACCTGTCAGATGCATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTTGCCAAGAAGTGAAGG-----AATTGGGGCAAGAAGGGAGCACCGACAACGACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site 1: EcoRI; Site 2: NotI;
Library made with RNA pooled from multiple tissues
including liver, lung, hypothalamus, pitultary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACACACAAAAGATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGCAAGGCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTCGTCCAGGTGCACGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             244 CCTGAATCTGAGACCCACGTCCCCCGCCGAGATCGCCAAGAAGCGGCCGAGTGGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 343.8; DB 6; Length
Pred. No. 1.3e-90;
3; Mismatches 140; Indels
                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                            organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1296 TTCGAGTTCCGAGAAGGAG 1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tch 22.8%; al Similarity 75.3%; 466; Conservative 3
Wray, J.E. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
              TITLE
JOURNAL
                                                                                                                                                                                                                                                                         FEATURES
                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                     /note="Organ: head neck; Vector: pucl8; Site 1: Smal; Site 2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196, 716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 26-MAR-2003
                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      947
                                                                                                                                                                                                                                                                                                                                                                                          GATGCCTTGGCAATGAAAGGGACCGCTGTTGTTCCATTCCGAGCTACACAAGGAAGAAT 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 662)
Smith,T.P.L., Roberts,A.J., Echternkamp,S.E., Chitko-McKown,C.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 GCGTGGAGAGTATGTCCAGCACCAATCAACGAGTTCTGTCCAGTGTGCACGGGGCCGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTGTGAACCAGCTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGT-GCGAACAGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTTGGAGAGTAGTCCAGCAACGATCAACGAGGTC--GTCCAGGTGCACGCGGCCGAGAG
                                                                                                                                                                                                                                                                                                                                                       GGTCATCCAAATCTGAGGGTGATATGCCCTTGGGGATTTCATGGTTGCTGCAGCCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCACACAT----TCAGAAGACCTTAATAACATGTCTTAATGCAACACGGC-CTACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ricacacargagagaccrigaagaracargicriraargcaacaccccacraccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGTGAACCAGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCGCCTTGATAAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTATGTGGGCAGACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTATGTGGTCAGACATTTAGAGTCGCTTTTGATGGTGAGATCCACATGAGAACACACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 GAGTCTTTCACTTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAAATCACATGCGGACRCATAATGGCAAATCGGGGGCCAG--AAGCAAACTGCAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCAATCCGAATCGAGGGGAATATGCCCTTGG----ATTGCATGTTCTGCAGCCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTCTTTCACTTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCTT
                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                              Indels 15;
                                                                                                                                                                                                                                                                         DB 7; Length 594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CB460210 662 bp mRNA linear
720064 MARC 6BOV Bos taurus CDNA 3', mRNA sequence
CB460210
                                                                                                                                                                                                                                                                     Score 359.2; DB 7;
Pred. No. 3.1e-95;
1; Mismatches 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTCCTCCTTGCAAATCTGCATGGTT 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTCCTCTCTGACATGATCTGCATGTTT
organism="Homo sapiens"
            /mol_type="mRNA"
/db_xref="taxon:9606"
                                                     /dev_stage="Adult"
/clone_lib="HT0268"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CB460210.1 GI:29266594
                                                                                                                                                                                                                                                                       23.8%;
84.9%;
                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 84.9 Matches 485; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Вов
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                                                                       423
                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
CB460210/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                  DRIGIN
```

셤

ò

ò g ò

셤

ò

g

δ ద ð 유

g

8

g

ઠે

a

ò 임

ò

Э,

761

602

821 542 1121

1001

941 425

881 482 1001 305 1181

185

245

1241

125

1295

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 352)
1 (bases 1 to 552)
1 (bases 1 to 552)
1 (bases 2 to 352)
1 (bases 3 to 552)
1 (bases 3 to 552)
1 (bases 3 to 552)
1 (bases 4 to 552)
1 (bases 5 to 552)
1 (bases 6 to 552)
1 (barria, B., Garcia Correa, R., Verjovski-Almeida, S., Eriones, M.R., Nagal, M.A., da Sllva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunscein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Yare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /dev_grage="Adult"
/clone lib="NN1174"
/clone lib="NN1174"
/note="Organ: nervous normal; Vector: puc18; Site_1: Smal; Site_2: Smal; A mini-Tibrary was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=PM3&t2=PM3-NN1174-19120-014-111&t3=2000-12-19&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243 TGCGGACACATAATGGCAAATCGGGGCCCAGAAGCAAACTGCAGCAAGCTTGGAGAGTA 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64 AGAACCTCCCAAGGAAAAGAATTGGAAGGAAATGAATTTAGCTGTGAGGTATGTGGGC- 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               842 TGCGGACRCATAATGGCAAATCGGGGGCCAGAAGCAAACTGCAGCAAGGCTTGGAGGGTA 901
    PM3-NN1174-191200-014-f11 NN1174 Homo sapiens cDNA, mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rus Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 AACAGCGGTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAGAAGTCAAGTGCGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           663 AGAACCTCCCAAGGAAAAGAATTGCAAGGAAAATGAATTTAGCTGTGAGGTATGTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACATTTAGAGTCGCTTTTGATGTTGAGATCCACATGAGAACACACAAAGATTCTTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    783 TTACGGGTGTAACATGTGCGGAAGAATTCAAGGAGCCTTGGTTT-CTTAAAAATCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183 TTACGGGTGTAACATGTGCGGAAGAAGATTCAAGGAGCCTTGGTTTCCTTAAAAATCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              603 AGCAGTTCTTCGGGTTGAAGCAGAGTATCTCAGTCCGCTTGATAAAAGTCAAGTGCGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                                                                                                                                                                                                                                                                                                                                                                              sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20.0%; Score 302; DB 4; Length 352; ilarity 97.1%; Pred. No. 3e-78; Conservative 1; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              low stringency conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .352
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: asimpson@ludwig.org.br
                           BF963063.1 GI:12380338
                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
  DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                BP201868 Sugano cDNA library, amygdala Homo sapiens cDNA clone AMR6683, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 22-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACGGAACTITGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCCAATCC 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               430
                                                                                                                                                                                                                                                                                                                                                                                           Juckels 1 to 3-25,
Suzuki, Y., Yamashita, R., Shirota, M., Sakakibara, Y., Chiba, J.,
Mizushima-Sugano, J., Nakai, K. and Sugano, S.
Sequence comparison of human and mouse genes reveals a homologous
block structure in the promoter regions
Genome Res. 14 (9), 1711-1718 (2004)
Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
1 Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTAATGCTTTGTGCTGATTCATATTTGAATCGAGGCATTGGGAACCCTGTATGCCTTGT 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 ACTGTTAGA-GGGTGAGTGACAGGTCTTAC-AGTGGCCTTAATCCAACTCCAGAAATTGC 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGTGGAAAGAACCAGTGACACCATCACTGAGCTTCCTAAAAGTTCGAAGAAGTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTATACACTTTTCTTTTGAACTTTTATAATAAATATTTTGCTCTGG-TTTTGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTATACACTITICITITIGAACTITITATAATAAATATITICICICIGGTITITIGGAACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGTTGCTGGGATTGACTTCTTGCTCAATTGAAACACTCATTCAATGGAGACAAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            371 CCAACGGAACTTTGAGATTATATGCAATCGAAAGTGACAGGAAACATGCCAACTCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ٠,
۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 458;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="amygdala"
/clone_lib="Sugano cDNA library, amygdala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 336; DB 5;
Pred. No. 2.4e-88;
0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. 458
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="AMR06683"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTTAATGTACATGGATGG 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP201868
BP201868.1 GI:52052270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.3%;
                                                                                                                                                                                                                                                                                      sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 458)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 22.3
Best Local Similarity 97.9
Matches 372; Conservative
                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF963063
                                                                                                                                                                                                                                                                                        Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
BF963063
LOCUS
                                                                                                RESULT 13
BP201868
                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

g

ò 셤 ò 요

a

ઠે

g

ઠે

셤 ð

ò

Page 10

```
g
                                                           ð
                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BF237807 768 bp mRNA linear EST 14-NOV-2000 601842326F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4079935 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1354 CA-AGAGAAGAGAAGAGCAACTCCCACGGCGAAGCGCCCTCCGTGGACGCGCGGATCC 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294 GATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGAACCATTGTGCAGGCCTCTCG 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1235 WAGTIGCCAI-TIGCCAAGAAGTGAAGGAATIGGGGCAAGAAGGGAGCACCGACAACGAC 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1175 GCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAKCTGGCTACCAAAGGAA 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATTCGAGTTCCGAGAAGGAGCTTGGAGAAACAAATAAGGGCAGTTGTGCAGGCCTCTCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATAGAGAAAAGAGAAGTGCAAACACTCCCACGGCGAAGCGCCCTCCGTGGACGCGGGATCC 240
                                                                                                                                                                                                                                                                                                                                                    E 1 (Dases 1 to 768)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: Ling Hong/Rubin Laboratory
CDNA Library Preparation: Ling Hong/Rubin Laboratory
CDNA Library Preparation: Ling Hong/Rubin Information CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LIML)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LiML at:
http://inage.llnl.gov
Plate: LLCM939 row: C column: 08
High quality sequence stop: 464.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GCATCCCTCAGCTCGATCCGTTCACCACCTTCCAGGCTTGGCAGCTACCAAAGGAA 60
                                                                                                                                                                                                                                                                                                     Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

    (bases 1 to 768)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3;
                     303 GTCCAGCAAACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 19.2%; Score 289.6; DB 2; Length 768; Best Local Similarity 96.7%; Pred. No. 2e-74; Matches 325; Conservative 2; Mismatches 6; Indels 3;
902 GTCCAGC-AACGATCAACGAGGTCGTCCAGGTGCACGCGGCCGAGAGC
                                                                                                                                                                                                                     BF237807.1 GI:11151713
                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                               mRNA sequence.
BF237807
                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                               RESULT 15
BF237807
                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
        Qy
        1413 CAAG-TTACCCAGTAGCAAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCA 1471

        Db
        241 CAAGATTACCCAGTAGCAAGCCCACTCACTGCTCCGAGTGCGGCAAAGCTTTCA 300

        Qy
        1472 GAACTTACCAGTGGTGTTGCACTCCAGAGTCCGGAAGGTTTCA 300

        Db
        301 GAACCTACACAGCTGGTTTGCACTCCAGGGTCC 1507

        Db
        301 GAACCTACCACCAGCTGGTCTTGCACTCCAGGGTCC 336
```

Search completed: June 29, 2005, 05:14:37 Job time : 3252.1 secs

OM nucleic

Run on:

Sequence:

Searched:

Database

```
AR414265 Sequence
AX971099 Sequence
BD109818 EST and e
AC133242 Rattus no
AR424010 Sequence
BD119563 EST and e
AR424014 Sequence
BD119567 EST and e
AC025424 Mus muscu
AL59096 Sequence
BD119567 EST and e
AC025424 Mus muscu
AC0844009 Sequence
AX984703 Sequence
AX984703 Sequence
AX984703 Sequence
AX424011 Sequence
AX424011 Sequence
AX424011 Sequence
BD119564 EST and e
BC071596 Sequence
BD119564 EST and e
BC071596 Sequence
BD119564 EST and e
BC0715946 Sequence
AX824011 Sequence
AX824011 Sequence
BD119564 EST and e
BC07956 Sequence
BC07956 Sequence
BC07976 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 18-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 GATGGCGATGAGTTTCGAGTGGCCGTGGCAATCGCTTCCCACCCTTCTTTACGTTACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 CTGCCGCCTGCACAACAGTCCAGCATGACGGTGAAGCTCAGGAGGCCCGCTCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 Accesargregacacreecagaagcagcreeceecergerecreergererrerrerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unknown.
Unclassified.
1 (bases 1 to 2605)
Gray,J., Collins,C., Hwang,S.-i., Godfrey,T., Kowbel,D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 6; Length 2605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Romens,J.
Genes from the 20013 amplicon and their uses
Patent: US 5892010-A 4 06-APR-1999;
Location/Qualifiers
1. 2605
//organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 2605;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4 from patent US 5892010.
AR070327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AL I GNMENTS
                                                                                                                                                                                   AC025424
AL590969
AR424009
                                                                        AR424010
AX984704
BD119563
AR424014
AX984708
BD119567
                                                                                                                                                                                                                                                        BD119562
CQ715946
                                                                                                                                                                                                                                                                                               AR424011
AX984705
                                                                                                                                                                                                                                                                                                                                   BD119564
BC079766
                                        3D109818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR070327.1 GI:7221215
                                                                                                                                                   Query Match
Best Local Similarity 100.0
Matches 2605; Conservative
                                                                                        494
494
494
197101
   7111222

7111222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

711222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

71222

712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown.
                                                                                                                                                                                                                                                          343.23
328.2
328.2
328.2
319.6
319.6
312.6
312.6
312.6
     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
AR070327
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
     ORIGIN
                                                                                                                                                                                         υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR070327 Sequence
BD085728 Genes fro
AL334939 Human DNA
BC006282 Homo sapi
AR339439 Sequence
B50594 Human prote
BD095367 Human prot
BC029181 Mus muscu
AL157902 Human DNA
AC100793 Homo sapi
E50584 Human prote
AR014763 Homo sapi
AR412671 Sequence
AX669505 Sequence
BD108224 EST and e
                                                                                                                            June 28, 2005, 14:57:12 ; Search time 7484.35 Seconds (without alignments) 16865.305 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AR412670 Sequence
AX969504 Sequence
BD108223 EST and e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                      2605
1 CARGCICGAAATTAACCCIC......CIGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                      GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                   4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                           nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AR070327
BD085728
AL1354923
BC006282
BC05943
BS05943
BC029181
AL157902
AC100793
AC100793
AC10688
BS0584
AR014763
AR412671
AR412671
AR412671
AR412671
AR412671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR412670
AX969504
BD108223
                                                                                                                                                                                                                                                                          IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0 ... Maximum DB seq length: 20000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match Length DB
                                                                                                                                                                                                     US-08-731-499-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44.5 106736
41.9 1122
41.2 1087
41.2 1087
26.8 11631
26.8 1 1632
24.7 134465
20.4 531
18.3 495
18.3 495
17.4 487
17.4 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0
                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2605
115865
1002
1002
1073
1073
1073
786.8
644
644
531
476
476
476
476
476
476
476
```

ö

Result

1311 ACTITICICATATACTACAGATACACATTACAAAACACATTACAAAACATT 1410 1311 CATAAAAACTTCCCCCCAGATAACTACACATTACAAAACACATTCCAAAACCTT 1410 1311 CATAAAAACTTCCTCCCCCAGATAACTACACACATTCCAAACACATTCCAAAACCTTCCACACTT 1410 1311 CATAAAAACTTCCTCCCCCAGATAACTACACACACACACA
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6

8 G

ያ 8

ò a

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021 TGTTGCCTCCCTTCTCAGGCTGGTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261 TTTTTTTTTTTTTTTTTGGCTTTAAGGAFTTATTTATTGTTTCTCTCTTTACAGTGTCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                            420
                                                                                                      420
                                                                                                                                480
                                                                                                                                                         480
                                                                                                                                                                                    540
                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
300
                          360
                                                    360
                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGACCCCGCTCTT
                                      ACTGAGGAAGAAAGGGAACCTCGAGTGGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                           361 ACTGAGGAAGAAGAGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                                                                                                                    GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA
                                                                                                                                                                                                                                                      541 GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCA
                                                                                                                                                                                                                                                                                                                     601 CAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACC
                                                                                                                                                                                                                                                                                                                                                              TGTCCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGGACCTGGGGTTTCTCACACCCCATATGTCTGTCCTTGGATAGGTGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGT
                                                                                                                                GTGGCGGAGGCCAGAAGAAGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                 GTGGCGGAGGCCAGAAGAATGGGGGAAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                                                                             GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA
                                                                                                                                                                                                                                                                                                                                                TGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGACAGACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                   TGTCCCCCAAAGACTGGATCTGTGACTCCACCCAGACTCAAAAGGACTCCAGTCCTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGAGCA
                                                                                                                                                                                                                                                                                             CAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                    301
                                                                             361
                                                                                                                                421
                                                                                                                                                                                     481
                                                                                                                                                                                                              481
                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                          301
                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                        8 8 8
                                                                                               В
                                                                                                                               ò
                                                                                                                                                  셤
                                                                                                                                                                             ે
                                                                                                                                                                                                        원 수 원
                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                පු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                            Rommens, J.

Genes from the 20q13 amplicon and their uses
Patent: UP 2001524802-A 4 04-DEC-2001;
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
OS Artificial Sequence
PD 04-DEC-2001
PF 15-JUL-1997 JP 1998506264
PR 15-JUL-1997 US 08/78532
PI JOB W GRAY, COLIN CONRAD COLLINS, SOO IN HWANG, TONY GODFREY, PI DAVID KONREL,
PI JOHANNA ROWHENS
PC CL2NNIS/II/C12Q1/68, A61K48/00
CC Description of Artificial Sequence: CC43
FF Source 1.2665
                                                                 2580
                                                                              2521 GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTTACAACGTCGTGACTGGGA 2580
                                                                                                                                                                                                               PAT 27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΡI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTCTAGAACTAGTGGATCCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTACGTTACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                        2461 GAATTCGATATCGATATCGATGATACCGTCGACCTCGAGGGGGGGCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAGCTCGAAATTAACCCTCACTAAAGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTTGTCCTT
                                                               GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGAACTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                            synthetic construct
synthetic construct
other sequences; artificial sequences.
1 (based 1 co 2605)
Gray,J.W., Collins,C.C., Hwang,S.I., Godfrey,T., Kowbel,D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism='Artificial Sequence'
Location/Qualifiers
1. 2605
/organism="synthetic construct"
/mol type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                        2605 bp DNA lin
Genes from the 20q13 amplicon and their uses.
BD085728
BD085728.1 GI:22631338
BP085728.1 GI:226344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      四
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 2605; Best Local Similarity 100.0%; Pred. No. 0; Matches 2605; Conservative 0; Mismatches
                                                                                                                                  AAACCCTGGCGTTACCCCAACTTAAT 2605
                                                                                                                   2581 AAACCCTGGCGTTACCCAACTTAAT 2605
                                                               2521
                                                                                                                                           2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
             2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                           LOCUS
DEFINITION
ACCESSION
VERSION
VERYNOBS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                    RESULT 2
BD085728
                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

ઠ g 6 6 6 6 6

ద ò

QY 2461 GAATTCGATATCAAGCTTATCGATACCGTCGAGGGGGGGG	AL354993 AL354993 AL354993 LOCUS LOCUS DIA LIDEAT PRI 20-JUN-2001 DEFINITION Human DNA sequence from clone RFS-823G15 on chromosome 20g13.2-13.3 Contains a peptidylprolyl isomerase A (cyclophilin A) (PPIA) pseudogene, the gene for OWC10-2, part of a gene encoding a putative zinc finger protein ZNF218, ESTS, STSs and GSSB, complete sequence. ACCESSION AL354993 VERRION AL354993.24 GI:11121037 VERRION HTG: cyclophilin: OWC10-2; peptidoprolyl isomerase: PPIA.	SOURCE Homo sapiens (human) ORGANISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE 1 (bases 1 to 106736) AUTHORS Frankland,J. TITLE Direct Submission JOURNAL Submitted (15-JUN-2001) Sanger Centre, Hinxton, Cambridgeshire,	CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk COMMENT On Nov 8, 2000 this sequence version replaced gi:11096473. During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with	only a small overlap as described above. The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em:, EMBL; Sw:, SWISSPROT; Tr:, TREMBL; Wp:, WORWPEP; Information on the WORMPEP database can be found at the http://www.sanger.ac.uk/Projects/C elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 20, constructed by the Sanger Centre Chromosome 20	http://www.sanger.ac.uk/HgP/Chr20 IMPORTANT: This sequence is not the entire insert of clone RP5-823G15 It may be shorter because we sequence overlapping sections only once, except for a 100 base overlap. The true left end of clone RP4-724E16 is at 106637 in this sequence. The true right end of clone RP4-669H2 is at 100 in this sequence. This sequence was finished as follows unless otherwise	noted: all regions were either double-blanked of sequence with all ternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. RPS-823G1S is from the library RPCI-5 constructed by the group of Pieter de Jong. For further details see	http://www.chri.org/bacpac/home.htm VECTOR: pCYPAC2. Location/Qualifiers 1106736 /organism="Homo sapiens" /mol_type="genomic DNa" /db.xref="taxon:9606" /chromosome="20" /map="q13.2-13.3"
1381 CATGAATCTTCCTCTCCCAGATTAAAGTACACACTTTGGAAAACAGATTGGAAAACCTTT 1440	1561 AGTACAAGGGTCCCCTATGATGATTCTTCTGTAGGACGAAATAATGTAATTTTTTCAGTT 1620		1861 TITCTTTTAGCTCTTGAACAAGCCAAACTGCTTCCTGCCTCAGGACCAGATATTTTGGGA 1920	1981 CTTCAGNICCTGCCGTAAAACTCTTCTTATAGAAGCCTGTCATGACACTGTCTCTTC 2040	2101 TACTTTTCTCTATCATGCTTCCCTCCATTATAATATTTTTATTATGTGTGTG		

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="dJ823G15.3 (Novel protein possibly zinc finger protein 218 ZNF218 (reported in Literature (PNAS vol 95:8703-8708)))"
                                                                                                      /note="10" 2003;
/note="10" 2009:
36251. .36326
/note="match: STS: Em:G43859"
/note="match: STS: Em:G43859"
/note="LORIa repeat: matches 399. .497 of consensus"
/note="LORIa repeat: matches 2. .399 of consensus"
/note="match: STS: Em:HSPF16G4"
'note="L1PB3 repeat: matches 5446. .6150 of consensus"
                                                          consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jobs 11,792 repeat: matches 900. .6144 of consensus" 55866. .56638 //note="1,1782 repeat: matches 1. .776 of consensus" complement(57366. .57862) //note="matches" //note="match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="LOR1a repeat: matches 1. .496 of consensus"
50646. .55870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1158.4; DB 9; Length 106736;
Pred. No. 1.2e-253;
0; Mismatches 1; Indels 2; Gi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /ACCE="125 copies 2 mer ga 62% conserved"
/note="125 copies 2 mer ga 62% conserved"
complement(64679. .65039)
/note="match: GSS: Em:A236314"
/note="match: GSS: Em:AQ990175"
/note="match: GSS: Em:AQ990175"
/note="match: GSS: Em:AQ990175"
/note="match: GSS: Em:AQ990175"
                                27757. .27811
/note="LIPB3 repeat: matches 5388. .5442 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="16 copies 2 mer aa 90% conserved" 64118. .64163 .hote="23 copies 2 mer ta 95% conserved" 64615. .64889 /note="match: GSS: Em:AQ749930"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60846. .61038

//note=march: GSS: Em:AQ197282"

63180. .65585

//note="march: GSS: Em:AQ293265"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63216. .63649
/note="match: GSS: Bm:AQ568074"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Continues in Em:AC004505
match: BSTs: Em:AA406371"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement (83637. .83894)
/note="match: STS: Em:G24374"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="match: GSS: Em:B41668"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /evidence=not_experimental
complement(83537. .83894)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="dJ823G15.3"
<82216. .>82551
/gene="dJ823G15.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63759. .63790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 99.7%;
Matches 1171; Conservative (
                                repeat_region
                                                                                        repeat_region
                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16286. 16731
/gene="dJ823G15.1"
/note="dJ823G15.1" (peptidylprolyl isomerase A (cyclophilin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /noce="Tandem repeat. Forced join. Gap size estimated to be approximately 250bp by restriction digest data." 10865. 10878 /note="Single clone region. Assembly confirmed by restriction digest data. Sequence from uni-directional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A) (PPTA) pseudogene)
match: proteins: Tr:062523 Tr:09Y536 Sw:P1742 Sw:P30405
Tr:09UR10 Sw:P1651 Tr:062NUT Sw:P29117 Sw:P04374
Tr:09UR10 Sw:P10111 Tr:09TUC6 Sw:P25007 Tr:065104
Sw:P54985 Sw:P52011 Sw:P52015 Sw:P215607 Tr:040672
Sw:P243284 Sw:P52011 Sw:P52015 Sw:P21568 Tr:040672
Sw:P24367 Sw:P24011 Sw:P3799 Sw:000660 Sw:P26882
Sw:P14812 Sw:P30414 Sw:P30415 Sw:P14823 Tr:088541
Tr:093970 Sw:P45877 Sw:P80311 Tr:074729 Tr:022515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="LiPAlO repeat: matches 5563. .6165 of consensus"
complement(21939. .22096)
/note="match: GSS: Em:AL303319"
complement(22725. .23122)
/note="match: GSS: Em:AQ005428"
                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join(16562. 16727,17042. 17121))
/note="match: GSS: Em:AZ043681"
19639. .20229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10872. 10901

/note="15 copies 2 mer ac 96% conserved"

1224. 12351

/note="29 copies 2 mer ac 94% conserved"

join (12456. 12685, 16697. 17055)

/note="match: STS: Em:G31647"

/note="match: GSS: Em:AQ418306"
/clone="RP5-823G15"
/clone="LD="RPCI-5"
/clone llb="RPCI-5"
complement (1607. .225)
/note="match: GSS: Em:AO547110"
/note="match: GSS: Em:AO544248"
complement (2281. .2176)
/note="match: GSS: Em:AQ14808"
/complement (4163. .4653)
/note="match: GSS: Em:AZ15820"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement (10725. .10890)
/note="match: GSS: Em:AZ410161"
10769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
/evidence=not_experimental
16399. 16570
/gene="did833G15.1"
/note="match: GSS: Em:AQ418306"
                                                                                                                                                                                                                                                                                    complement (4295 . 4728)
/note="match: 6SS: Em:AQ439057"
complement (4329. . 4727)
/note="match: GSS: Em:AQ452763"
                                                                                                                                                                                                                                                                                                                                                                                                    4728. 5164
/note="match: GSS: Em:AQ505606"
complement(4944. 5321)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene="dJ823G15.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dGTP read only."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sw: Q41651"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       opnaso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'pseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                     misc_feature
                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOS
```

```
1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGTAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCCAC 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAGCCCTGGCTGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1048 GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCCAACTCCCAAAAAAA 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT 17-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                              888
                                                                                                                                                                                                                                                                                                                                                                                                                                               948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      987
                                          768
                                                                                                     687
                                                                                                                                                                        828
                                                                                                                                                                                                                                           747
                                                                                                                                                                                                                                                                                                                                                                                807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163 GCGTCGACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CIGICCTICTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGTGAGAGGTGTGGCCCCACCGATTATGATATTAAAATCTCAACTCCCAAAAAAA
                                                                                    628 AGACAGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACCACGACTCAAAAGGACTC
                                                                                                                                                                                                               688 CAGTCCTGAAGGCTGGGACCTGGGGATTCTCACACCCCATATGTCTCTCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          808 CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG
                                                                                                                                                                                                                                                                                                              ATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTTCTT
                                                                                                                                                                                                                                                                                                                                                    748 ATAGGGTGAGGCTGAAGCACCAGGGAAAAATATGTGCTTCTTCTCGCCCTACCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGTAAGTACATACACACACACACGCCTGCACATGCTTCTGTCTCCTCCTCCTCCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    223 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCTTGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGGTCCAGGAGGC
                                                                                                                                                                            173 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1076.2; DB 6;
Pred. No. 3.5e-235;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unclassified.

1 (bases 1 to 1243)

Tang, Y.T., Zhou, P. and Drmanac, R.T.
Nucleic acids and polypeptides
Patent: US 6569662-A 930 27-MAY-2003;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AR339439 1243 bp DN
Seguence 930 from patent US 6569662.
AR339439

    1243
    /organism="unknown"
    /mol_type="genomic DNA"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AR339439.1 GI:33726296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAAAAAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1108 AAAAAAAAAA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1078; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1189
                                          709
                                                                                                                                                                               496
                                                                                                                                                                                                                                                                                                              829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
AR339439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                    셤
                                                                                                                                                                     à
                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="MGC10540"
/codon_start=1
/product="hypothetical protein MGC10540"
/protein_id="hypothetical protein MGC10540"
/protein_id="hybothetical protein MGC10540"
/db_xref="G1:13463333"
/db_xref="LocusID:84313"
/db_xref="Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAL Plate: 15 Row: d Column: 18
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 14150154.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITTACGITACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGGCTGGTGCTCGCT 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            268 TGTATTAGAGGAACTGAGGAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCGG 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crrccrdarcarcrescesassecasasasarcsesasascrcarcrarcasisserrrc 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              448 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTAGCAGGGACCTGTCTCCCTTTACTTCTTACTCCCCACCTTTCCAGGGCTTTCAAAAGG 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGCCTTTCAAAAGG 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCGAGTATCGCTTCCCACCCTT 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 148 GGTCCTGTCCTTCTCTGCCGCCTGCACAAACAGTCCAGGATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGCAGCAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41.9%; Score 1092; DB 9; Length 1122; 100.0%; Pred. No. 8.5e-239; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                    /mol_type="mmman" or prompted by the prompted 
                                                                                                                                                                                                           /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              db_xref="LocusID:84313"
                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Vector: pOTB7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="MGC10540"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 1092; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

ઠે 셤 ò 8 8 g ઠે 셤 ઠ 셤 ò 셤 8 셤 δ ద ò 셤 Š 8

```
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                         135
                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                                                                                                                    169
                                                                                                                                                                                                                                                                                                                                                      75
                                                                                                                                                                                                                                                                                                                                                                         229
                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               589
                                                                                                                                                                                                                                                                                                                                                                                                                              195
                                                                                                                                                                                                         source
SOURCE
ORGANISM
                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                             PEATURES
                                                                                 COMMENT
                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     상
유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                     ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                     1012
                                                                                                                                                                                                                                                                                                                                                                                                                                       1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1192
                                                                                                                                                                                                                                                                                                                                                                                                   1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 27-AUG-2002
          352
                           402
                                              412
                                                                462
                                                                                472
                                                                                                   522
                                                                                                                     532
                                                                                                                                       582
                                                                                                                                                          592
                                                                                                                                                                            642
                                                                                                                                                                                              652
                                                                                                                                                                                                               702
                                                                                                                                                                                                                                 712
                                                                                                                                                                                                                                                   762
                                                                                                                                                                                                                                                                     772
                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                          832
                                                                                                                                                                                                                                                                                                                           882
                                                                                                                                                                                                                                                                                                                                              892
                                                                                                                                                                                                                                                                                                                                                               942
                                                                                                                                                                                                                                                                                                                                                                                952
                     CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCCAGATTGTA
                                                                                                                                                                                             CAGGAGCACAAAGGCCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                             TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1123 GCCCTGCCGCGCGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                                                        TTAGAGGAACTGAGGAAGAAGGGAACTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                            CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGGGGTTTCCAGG
                                                                                                                                 AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                         GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                  GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTTACAG
                                                                                                                                                                                                               caddadcacaaddccaaaarcarcacrarcaadcaardcccaadcarcaagrrcrard
                                                                                                                                                                                                                                           CAGGACCTGTCTCCCTTTACTTCTTACCTCCCCACCTTTCCAGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                               AGACCCAGTGTCCCCCAAAGACTGGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                          GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                        GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                 TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                    TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                     AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                   CAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                     AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                      TAAGTACATACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1087 ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human protein and cDNA
E50594
E50594.1 GI:22555017
JP 2001161368-A/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1193 A 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       À 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E50594
                                                                                                                                                                                                                                                                                                                                                                                                                                       1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1133
                           343
                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1073
                                              353
                                                                                413
                                                                                                                     473
                                                                                                                                      523
                                                                                                                                                          533
                                                                                                                                                                            583
                                                                                                                                                                                                               643
                                                                                                                                                                                                                                                   703
                                                                                                                                                                                                                                                                     713
                                                                                                                                                                                                                                                                                                                           823
                                                                                                                                                                                                                                                                                                                                              833
                                                                                                                                                                                                                                                                                                                                                              883
                                                                                                                                                                                                                                                                                                                                                                                 893
                                                                                                                                                                                                                                                                                                                                                                                                   943
                                                                                                                                                                                                                                                                                                                                                                                                                     953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1243
          293
                                                                403
                                                                                                   463
                                                                                                                                                                                              593
                                                                                                                                                                                                                                 653
                                                                                                                                                                                                                                                                                                         773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT (
E50594
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                  셤
                        셤
                                                         8 8
                                                                                              g
                                                                                                                    ò
                                                                                                                                  a
                                                                                                                                                      ò
                                                                                                                                                                        a
                                                                                                                                                                                                          g
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
          ઠે
                                           Š
                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Kato,S. and Saeki,M.
Human protein and cDNA [3]

Detent: JP 2001161368-A 14 19-JUN-2001;

SCIENCE & TECH AGENCY

OS Homo sapiens (human)

PN JP 2001161368-A/14

PD 19-JUN-2001

PF 06-DEC-1999 JP 1999346864

PI SELJI KATO,MIHORO SAEKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168
                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74
                                                                                                                                                                                                                                                                                                                                              C12N15/09, C07K14/47, C07K16/18, C12N1/15, C12N1/19, C12N1/21, C12NS/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                709 AGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGCAGTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTCCTTCTTCTGCCGCCTGCAACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315 CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S55 CTAGCAGGGACCTGTCTCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cresecractacearesceareactriceaeresceresceaerarescrireceaerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCCTGTCCTTCTGCCGCCTGCAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 375 caggagregccagaacaacrecererrracecrerargaacreacraategggaagaeac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> Agagganganggangtrecaeggenggangaagecaerenaergeggeerergeagecer</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGCAGGAGCACAAGGCCGAGATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                 C12P21/02, C12P21/08, C12N15/00, C12N5/00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 41.2%; Score 1073; DB 6; I
Best Local Similarity 100.0%; Pred. No. 1.9e-234;
Matches 1073; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (28). (558).
Location/Qualifiers
1. .1087
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
```

	Best	Best Local Similarity 100.0%; Pred. No. 1.9e-234; Matches 1073; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
	λ _O q _O	GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT 16
ATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTT 888 	& 8	169 CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT 228
CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA 948	& a	229 GGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA 288
CATGTAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCAC 1008 	λ d	289 GAGCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGGT 348
CCCTTTAGCTGCTGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTCCT	& 8	349 IGTATTAGAGGAACTGAGGAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 408
GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCAGGGGCCTG 1128 	čó qa	409 CTTCCTGATCATGTGGGGGGGGGGGAAGAAGAACTCATCTATCAGTGGGTTTC 468
GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC 1181 	cy O	469 CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
r c	B &	529 AGAGGATGAGGAGTTCCACGGGCTGATGAAGCCACTCTACTGCGGGGTCTGCAGGCCCT 588
i iinear PAI 2/-AUG-2UU2	& a	589 ACAGCAGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT 648
Craniata, Vertebrata, Buteleostomi;	& a	649 CTAGCAGGGACCTGTCCCTTTACTTCTTACCTCCCCCCTTTCCAGGCTTTCAAAAGG 708
Mammalla; Eutherlas Primates; Catarrhin; Hominidae; Homo. 1 (bases 1 to 1087) Kato,S., Eguchi,C. and Saeki,M. Human proteins and CDNAs thereof	co G	709 AGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTC 768
SHI KATO,CHIKASHI EGUCHI,	SP GS	769 CAGTCCTGAAGGCTGGGACTGGGTTTCTCACACCCCATATGTCTGTC
C-1999 JP 99P 346864 PR	S a	829 ATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTT 888
031090,10-FEB-ZOUO UP 000 034931 PK 034090,14-FEB-ZOUO UP 00P 035829 PR 035899,14-MAR-ZOUO UP 00P 071161 PR 160851	ζζ Q	889 CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA 948
SELSHI KATO, CHIKASHI EGUCHI, MIHOKO SAEKI CO7K14/47, CI2N15/12, CI2N15/63, CO7K19/00, CO7K14/00, CI2N5/10, PC K16/18// CI2P21/02, CI2P21/08, (CI2P21/02, CI2R1:91)	රු යි	949 CATGTAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCAC 100
<pre>thuman proteins and cDNAs thereof Key CDS (28) . (558).</pre> Location/Qualifiers Location/Qualifiers	cy ea	1009 CCCTITAGCTGCTGTTGCCTCCCTTCTGAGGTGGTGGTGGATCCTTCCT
	S d	1069 GGAAGCCCTGGCTGCAGCAGCCATTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG 1128
DB 6; Length 1087;	.8 √	1129 GCAGTGAGAGGTGTGGCCCCACCGATTTATGATATTAAAATCTCAACTCCC 1181

g

```
/tränslation="wamsfewpwqyrpppfftlopnvdtrokollaawcslvlsfcrlh
Kossmtvmbaqesplfnnvklorklpvesiqivleelrkkgnlewldknkssflimmr
Rpeemgkliyqwvsrsgonnsvftlyeltsgedtedebefhgldbatllralqalqoeh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          717
                                                                                                                                                                                                                                               68,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                               /product="DNA segment, Chr 11, Wayne State University
expressed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 AGCCCGCTTTTCAACAACGTCAAGCTACAGCGGAAACTTCCTGTGGAGTCAATTCAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GTATTAGAAGAACTGAGAAAGAAAGGGAACCTCGAGTGGTTGGATAAGAAAAGTCTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITACGITACAACCGAATGIGGACACICGGCAGAAGCAGCIGGCCGCCTGGIGCTCGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470 AGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGATGAAGAGTTCCATGGGCTGGACGACGAGCGACCCTGCTGCGCCCTCTGCAGGCCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 CAGCAAGAGCACAAGGCTGAGATTATCACTGTCAGCGATGGCCGAGGAGTCAAGTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 TAGCAGAGACCTGCCT-CCTTTACTTCTTACCTCCACCTTTCCAGGGCTTTCAAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600 GACAGACCTAGTGT-CCCCACAGACTGGATCTGTCACTCCTCCAGACTC-AAAGGGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               770 AGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCA-CACCCCATATGTCTGTCCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          658 AGrecrealadecreagaerraggargrereceaearaaaceerraarreceregg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          110 TGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTACCGCTTCCCGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATTCCAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAGCAGGGACCTGTCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 10; Length 1112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30.2%; Score 786.8; DB 10; Length 87.9%; Pred. No. 5.7e-169; ive 0; Mismatches 117; Indels
  clone_lib="NCI_CGAP_Kid14"
                                                note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                             /protein_id="AAH29181.1"
|db_xref="G1:20809733"
|db_xref="LocusID:28084"
|db_xref="MG1:106354"
                                                                                         /gene="D11Wsu68e"
/db_xref="LocusID:28084"
/db_xref="MGI:106354"
                                                                                                                                                                          13.<sup>7</sup>.543
/gene="D11Wsu68e"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KAEI I TVSDGRGVKFF"
                         lab_host="DH10B"
                                                                                                                                                                                                                           codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 963; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                            gene
                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1112)

Strausberg, L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Schenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.K., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Parmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S. Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Male, J.A., Gunaratne, P.H., Richards, S.W., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y. Butterfield, Y.S., Kerteman, M., Touchman, J.W., Green, E.D., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length. Proc. Natl. Acad. Sci. U.S.A., 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LIML at: http://image.llnl.gov Series: IRAK Plate: 61 Row: m Column: 3 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 25092661.
                                                                                                                          ROD 29-JUN-2004
                                                                                                                       BC029181
Mus musculus DNA segment, Chr 11, Wayne State University 68,
expressed, mRNA (cDNA clone MGC:35627 IMAGE:4240500), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (101-MAY-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:10090"
/clone="MGC:35627 IMAGE:4240500"
/tissue_type="Kidney, normal. 5 month old male mouse."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunararne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
1035 GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-refaail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
TONA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                      musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/strain="FVB/N"
                                                                                                                                                                                                                        BC029181.1 GI:20809732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 1112)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg, R.
                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                               ACCESSION
                                                                       RESULT 8
BC029181
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
```

g

ઠે

g ઠે g ઠે 셤 δ g ઠે g ò 용

ò

```
FMILOGASO EMINOUSASO EMINOSASO EMINOUSASO EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /evidence=not_experimental
join(<6689. .6804,10305. .10524,12924. .13096,16397. .16512,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence is the entire insert of clone RP4-675C20 The true left end of clone RP11-42I21 is at 81459 in this sequence. The true right end of clone RP11-18BD8 is at 37690 in this sequence. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="dJ675C20.1 (mannosidase, alpha, class 1A, member
Park Cancer Institute by the group of Pieter de Jong. For further details see http://bacpac.med.buffalo.edu/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="L1MD2 repeat: matches 5960. .6192 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3696, .6108
/note="TIGGER1 repeat: matches 20. .2418 of consensus"
6689, .42414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="match: proteins: Tr:002773 Sw:P53624 Sw:P53625 Tr:018498 Sw:P93098 Sw:P33908 Tr:090JI3 Sw:P45700 Tr:0600_start=3 Codon_start=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Alu repeat: matches 56. .87 of consensus"
2873. .3064
/note="LIME repeat: matches 5320. .5513 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="RP4-675C20"
/clone lb="RPCI-4"
72. .786
/note="HAL1 repeat: matches 170. .910 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1756. .2037 'note="AluSx repeat: matches 1. .298 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="match: cDNAs: Em:U03458 Em:U03457 Em:X74837
                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                   chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="MAN1A2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (6367. .36499)
gene="MAN1A2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="MAN1A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .42414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2456. .2486
                                                                                                                                                                                                                                                                    1. .116397
                                                                                                                                                                                                                                                                                                                                                                                                                                                          /map="p13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (14-AUG-2000) Sanger Centre, Hinxton, Cambridgeshire, Cabonitted (14-AUG-2000) Sanger centre, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone requestes: clonerquestes@sanger.ac.uk
On Jul 28, 2000 this sequence version replaced gi:9437233.

During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above. This sequence has been finished according to sequence map criteria as follows. An attempt is made to resolve all sequence map criteria such as compressions and repeats, but not necessarily within known annotated human repeat sequence elements (e.g. Alu). Where the sequence is ambiguous, there is an annotation using the 'unsure'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           feature key.
The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:
Em:, EMBL; Sw., SWISSPROT; Tr., TREMBL; Wp., WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence chromosome 1, constructed by the Sanger Centre Chromosome 1 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chrl
RP4-675C20 is from the library RPCI-4 constructed at the Roswell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGGTGGTGAGAG--GCGGGCCCACTCTGATTTATGATATTAAAATCTCTACTCCCAAA 1069
                                                                                                                                                                                                                                                                                                                                         CATGTAAGTACATACACACACGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCAC 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCC----ACGGG 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1125 CCTGGCAGTGAGAGGTGTGGCCCCACACAGCGATTTATGATATTAAAATCTCCAACTCCCAAA 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRI 29-SEP-2000
                                              888
                                                                                                                774
                                                                                                                                                                                          948
                                                                                                                                                                                                                                                                775 CCCATCCTATACTGTCCCCGAGCCAGGGTCTATAAACCTGACACTTTACATGTTCTCA 834
                                                                                                                                                                                                                                                                                                                                                                                            CACATAAGTACACACCCACCT--ACATGCGCCTGCACAAGCTTCTTCTCCCTCCTCCCAC 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            893 TCCTTTAGCTGCTGCTCCCTTCTCAGGCTGGTGCTGGATCCTCCCCA-GGGATGGG 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL157902 DNA linear PRI 29-SEP-200 Muman DNA sequence from clone RP4-675C20 on chromosome 1913.2. Contains the 3' end of the MAN1A2 gene for mannosidase alpha 1A2, pseudogene similar to predicted fly, worm and yeast genes, ESTS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                            718 ATAGAGTAAGCCCACAGGAGGAGGATGCGTTTCTT---GCCCTACCTCTT
                                              ATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STSs and GSSs, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HTG; MAN1A2; mannosidase.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1185 AAAAAAAAAAAAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1070 AAAAAAAAAAAAA 1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AL157902.6 GI:9581579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 116397)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Coville, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1012
                                                                                                                                                                                                                                                                                                                                         949
                                                                                                                                                                                                                                                                                                                                                                                                                   835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
AL157902
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
```

```
complement (29909
                                                                                                                                                                                                                         Query Match 26.8%;
Best Local Similarity 80.3%;
Matches 925; Conservative
                                   repeat_region
                                                                  repeat_region
                                                                                                repeat_region
                                                                                                                              repeat_region
misc_feature
                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                         156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           623
                                                                                                                                                                                                                                                                                                                                                                                                                         216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    863
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                             IKKSRGGLTFIGEWKNGHLEKKWGHLACPAGGMFALGADGSRADKAGHYLELGAEIAR
TCHESYDRTALKLGPESFKFDGAVEAVAVRQAEKYYILRPEVIETYWYLWRFTHDPRY
RQWGWEAALAIEKYCRVNGGFSGVKDVYSSTPTHDDVQQSFFLAETLKYLYLLFSGDD
                                                                                               'db_xref="UniProt/Swiss-Prot:060476"
'translation="HTSVGGLGDSFYEYLLKAWLMSDKTDHEARKMYDDAIEAIEKHL
                  тетрех
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Alusx repeat: matches 1. .309 of consensus" 28659. .28943
/note="MER2 repeat: matches 1. .345 of consensus" 29210. .294489
/note="LIMB2 repeat: matches 5841. .6166 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="Lime2 repeat: matches 5903. .6120 of consensus"
16799. .26887
note="Lime3 repeat: matches 6087. .6175 of consensus"
16892. .27031
note="Lime2 repeat: matches 5749. .5896 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    consensus
'evidence=not_experimental
product="dJ675C20.1 (mannosidase, alpha, class 1A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="L2 repeat: matches 2627. .2749 of consensus" 7869. .18611
note="LiMC4 repeat: matches 7182. .7960 of consens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0219. .20318
note="L2 repeat: matches 2418. .2521 of consensus"
642. .20926
note="HAL1 repeat: matches 467. .763 of consensus"
4238. .24350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5214. _25516
note="L2 repeat: matches 2440. .2748 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="FLAM C repeat: matches 2. .123 of consensus"
5042. .25148
                                                                                                                                                                                                                                                                                                         note="L2 repeat: matches 2584. .2710 of consensus"
                                                                                                                                                                                                                                                                                                                                                                        .2695 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat: matches 1. .371 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat: matches 1. .188 of consensus"
                                                                                                                                                                                           7043. .7347

700te="AluSx repeat: matches 3. .307 of consensus"

7506. .7733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .259 of consensus"
                                                                                                                                                                                                                                           note="MIR repeat: matches 1. .262 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acac 87% conserved"
                                                                                                                                                                                                                                           3136. 8179 -- r. ...auche8 1. .262 of cor froce="L2 repeat: matches 2657. .2700 of 1363. .8480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .175 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="L2 repeat: matches 2629. .2746 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .2742 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6291. .26338
note="24 copies 2 mer ac 87% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9003 .19046 ...
inote="11 copies 4 mer atat 81% conservinces" 1922 ...
9168 ...
inote="2 copies 27 mer 100% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'LIME2 repeat: matches 5749.
                                                                                                                                                                          LLPLDHWVFNTEAHPLPVLHLANTTLSGNPAVR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="match: GSS: Em:AQ876874"
5669. 15813
note="WIR repeat: matches 93. .2
6746. 16803
note="MER5A repeat: matches 13.
                                                                                                                                                                                                                                                                                                                                                                        note="L2 repeat: matches 2592.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="L2 repeat: matches 2621.
                                                                                                                                                                                                                                                                                                                        complement (10218. .10720)
/note="match: GSS: Em:AQ664370"
11953. .12065
                                                                                                                                                                                                                                                                                                                                                                                       complement(13408. .13965)
/note="match: GSS: Em:AQ310773'
                                                protein_id="CAC10451.1"
|db_xref="G1:10443041"
|db_xref="GOA:060476"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6293. .26340
note="12 copies 4 mer
                                                                                                                                                                                                                                                                                                                                                                                                                       3564. .14014
gene="MAN1A2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7228. .17336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="THE1C 14894. .25015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .24864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6549. .2673B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5877. .26061
note="MER5A
                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
```

```
63048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63580
                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                        6299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               515
                                                                                                                                                                                                                                                                                                                                                                                           215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            862
                                                                                                                                                                                                                                                                                                                      155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    921
                                                                              consensus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63701 CTTCTTCAAAGCTTGCCTACTTCCTATCCTAGACTGCTTCTGAGCCAGGGTCTGT
                                                                                                                                                                                                                                                                                                                                             GCTTCCCACCCTTCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                  GCTTTCCCGCC--CTTTACATTACAGCTGAACGTGGCCACTTGGCAGAAGCAGCTGGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGGTGCTCGCTGGTCCTGTCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63226 AGAGCAAGTCTAGTTTCCTAATCATGTGGCGGAGGCCAGAAGAATGGGGAAAACTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAAAATAT
                                                                                                                                                   .4100 of consensus"
                                                                                                                                                                                                                                                                                                                    96 AATTCGGCACGAGCTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336 AGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>AGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCT</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCGATGGCCGAGGCGTCAAGTTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACCTTTCCAGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCTTCTTCTC-GCCCTACCTCCTTTCCCTAGACTGTCCTTGAGCCAGGGTCTGT
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                           Length 116397;
                                                                                                                                                                                                                                                                               28;
                                                                            .5224 of
                                                                                                               .6155 of
                                                                                                                                                                                                                                                                               Indels
                                          .1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGCAGGCCCTACAGCAGGAGCACAAGGCCGAGATCATCACTGT
/ Once="match: GSS: ED: A0379387"
30087. 31494
Anote="Limbac repeat: matches 274. 17
32097. 34934
Anote="Limba repeat: matches 2354. 5
34905. 35728
Anote="Limba repeat: matches 5336. 6
35756. 35102
Anote="Limba repeat: matches 5336. 6
36751. 36820
Gene="WANIA2"
Anote="WANIA2"
Anote="match: GSS: Em: A0093391"
                                                                                                                                                                                                                                           Score 697.6; DB 9;
Pred. No. 3.3e-148;
                                                                                                                                                                                                                                                                               0; Mismatches 199;
```

g ઠે g ò 셤 ò 셤 ઠે 셤 ò 셤

```
A Unbaben 1. Co 134465)

Barran, B., Nusbaun, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, B., Cooke, A., Cooke, P., DeArellano, K., Diaz, J. S., Dodge, S., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gard, S., Graham, L., Grand-Pierre, M., Hafez, N., Hagos, B., Horton, L., Hulme, W., Illev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Inindblad-Toh, K., Ilu, G., Maclean, C., Macdonald, P., Major, J., Matchews, C., McCarthy, M., Meldrim, J., Meneus, L., Minova, T., Matchews, C., McCarthy, M., Meldrim, J., Meneus, L., Minova, T., Menga, V., Murphy, T., Naylor, J., Mayven, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Yasailiev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Travers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission
Submitted (15-JAM-2003) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
On Jan 15, 2003 this sequence version replaced gi:24415443.
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.wanhington.edu/RM/RepeatMasker.html
Gardyna,S., Gord,S., Graham,L., Grand-Pierre,N., Hafez,N.,
Hagos,B., Hortcon,L., Hulme,W., Iliev,I., Johnson,R., Jones,C.,
Kamat,A., Karatas,A., Kells,C., Landers,T., Levine,R.,
Lindblad-Toh,K., Liu,G., MacLean,C., Macdonald,P., Major,J.,
Matthews,C., McCarthy,M., Meldrim,J., Mencus,L., Mihova,T.,
Mlenga,V., Murphy,T., Naylor,J., Nguyen,C., Nicol,R., Norbu,C.,
Norman,C.H., O'Connor,T., O'Donnell,P., O'Nell,D., Oliver,J.,
Peterson,K., Phunkhang,P., Pierre,N., Raymond,C., Retta,R.,
Rise,C., Rogov,P., Koman,J., Schauer,S., Schupback,R.,
Stojanovic,N., Talamas,J., Tesfaye,S., Theodore,J., Topham,K.,
Travers,M., Vassillev,H., Viel,R., Vo,A., Wilson,B., Wu,X.,
Wyman,D., Young,G., Zainoun,J., Zembek,L., Zimmer,A. and Zody,M.
                                                                                                                                                                                                                                                                                                                                                                    Submitted (27-OCT-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA (bases 1 to 134465)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------ Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: sequence_submissions@genome.wi.mit.edu
_______ Project_Information
Center project name: 120710
Center clone name: 3193_K_9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'clone_lib="CITD2 Human BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="AluJo/FRAM"
94. .389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       575. .694
/rpt_family="MER21B"
1296. .1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="AluSx"
complement(479. .551)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rpt_family="Tigger5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone="CTD-3193K9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="AluJb"
1432. .1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="Alusx"
1731. .2062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . .134465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               53878 GCTGCTGGATCTTTCCTAGGGAATGTGGGAAG-CCTGCCTGCAGGCAGGCATCCAAGCAA 63936
                                                                                                                                                                                                                                                                                                                                                                                        63818 CATGCTTCTGTCTCCTCCATCTTCTATCCCCTTAGCTGCTGTTGCCTCCCTTCTCAGGCT 63877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63997 TTATTAAAATCTCAACTGCCCCACTTCAGACAATAAAAACTGAGCTATATGCTGCTCAC 64056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     134465 bp DNA linear PRI 15-JAN-2003
Homo sapiens chromosome 17, clone CTD-3193K9, complete sequence.
AC100793
                                                                                                                                     982 CATGCTTCTGTCTCCTCCTCCTCCCCCTTTAGCTGCTGTTGCCTTCTCAGGCT 1041
                                                                                                                                                                                                                                                                                                                                                    1102 TATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGTGTGGCCCCACACACGGATTTATG 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (22-NOV-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 (bases 1 to 134465)
Birren, B., Nusbaum, C., Lander, B., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J. S., Dodge, S., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J.,
                              Birren, B., Nusbaum, C. and Lander, E.
Homo sapiens chromosome 17, clone CTD-3193K9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC100793.8 GI:27753789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 134465)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 134465)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64057 AATAAATTCAGT 64068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1222 TCGAGAACTAGT 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
AC100793
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
```

us-08-731-499-4.rge

```
complement (15362. 15663)

(rpt family="AluJo" |
1581. 15924

/rpt family="Gc rich" |
1610. 1616

/rpt family="GCGGG]n" |
complement (16380. 16658)

/rpt family="GGGG] |
/rpt family="Lib" |
                                                                                                                                                                                                                   /rpt_famlly="L2"

complement (6586 .6887)

cpt_famlly="Alusc"
6888 .7159

/rpt_famlly="L2"

/rpt_famlly="GC_rich"
7957 .8044

/rpt_famlly="GC_rich"
7957 .8044

/rpt_famlly="GC_rich"
/rpt_famlly="GC_rich"
/rpt_famlly="GG_rich"
/rpt_famlly="GG_rich"
/rpt_famlly="GGGGG]
/rpt_famlly="GGGGG]
/rpt_famlly="MER91A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .19088)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="(TTGGGG)n"
21037. .21216
/rpt_family="(CTGGGG)n"
21166. .21309
/rpt_family="(TTGGGG)n"
                 2400 . 2547

17pt family="L2"

2613 . 2661

/rpt family="(TA)n"

complement(2670. . 2789)

/rpt family="FLAM_C"

complement(2795. . 3122)

frpt family="Aluy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19935. .20031
/rpt_family="MIR"
20334. .20445
/rpt_family="GA-rich"
20855. .20960
/rpt_family="(CTGGGG)n"
20906. .21085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2868. .12900
rpt_family="(CCCCCT)n"
3333. .13370
                                                                                                                                                         /rpt family="L2"
complement (6233. .6530)
rpt_family="Aluy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="GC_rich"
17379_ 17409
/rpt_family="GC_rich"
18576_ 118710
/rpt_family="MIR"
complement(18775_ 1908
                                                                                                                                                                                                                                                                                                                                                                                             10084 .10105

/rpt_family="GC_rich"

10488 .10589

/rpt_family="MIR"

12437 .12588

/rpt_family="MIR3"

/rpt_family="MIR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rpt_family="GC_rich"
4420. .14475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rpt_family="AluSx"
9780. .19886
/rpt_family="AluJb"
2400. .2547
                                                                                                                                                                                                             .6585
                                                   repeat_region
                                                                                                                                                                                                                                                                                                      repeat_region
                      repeat_region
                                                                                  repeat_region
                                                                                                                 repeat_region
                                                                                                                                               repeat_region
                                                                                                                                                                              repeat_region
                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
```

```
116848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116788
                                                                                                                                                                                                                                                                                                                                                    116908
                                                                                                                                                                                                                                                                                                                                                                                                            116968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     117089 ACTGTCCTTGAGCCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTA 117148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               117208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1079 GCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGGCCTGGCAGTGAGAG 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC016889 187723 bp DNA linear PRI 01-JAN-2003
Homo sapiens chromosome 17, clone RP11-506G7, complete sequence.
AC016889
                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                         718
                                                                                                                                                                                                                                                                                                                                                                                 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 868
                                                                                                                                                                                                       598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 187723)
Birren, B., Nusbaum, C. and Lander, E. Homo sapiens chromosome 17, clone RP11-50667
                                                                                                                                                                                                                         116729 GAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAG
                                                                                                                                                                                                                                                                                116789 CACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                  779 GGCTGGGACCTGGGGTTTCTCACACCCCATATGTCTGTCCTTGGATAGGGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTCTTCACACATGTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                117149 CATACACACATGCGCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCTTTAGCT
                                                                                                                                                                                                                                                                                                                                        116849 CCTGTCCCTTTACTTCTTACCTCCCACCTTTCCAGGCTTTCAAAAGGAGAGAAACCC
                                                                                                                                                                                                                                                                                                                                                                               AGTGTCCCCCAAAGACTGGATCTGTGACTCCAGACTCAAAAGGACTCCAGTCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGAAGCACCAGGGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAG
                                                                                                                                                                                                        539 GAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGAGG
                                                                                                                                                                                                                                                               599 CACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTAGCAGGGA
                                                                                                                                                                                                                                                                                                                       CATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTAGCT
                                                                                                                                                                           Gaps
                                                                                                                                                                          ö
                                                                                                                                                Length 134465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                             Query Match 24.7%; Score 644; DB 9; Le Best Local Similarity 100.0%; Pred. No. 6.2e-136; Matches 644; Conservative 0; Mismatches 0;
complement (22213. .22416)
                                                                                      .23601)
          / rpt_family="L2"
22417. .22720
23437. .23457
/ rpt_family="Alusg"
23337. .23457
/ rpt_family="MR"
complement (23477. .22
24030. .24157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC016889.28 GI:27452920
HTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
Homo sapiens
 repeat_region
                              repeat_region
                                                           repeat_region
                                                                                        repeat_region
                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                          629
                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
AC016889
LOCUS
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
```

```
Center project name: L5105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'rpt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                    FEATURES
                             Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boquelavkiy, L., Boukhgalter, B., Baddwin, J., Barna, N., Beckerly, R., Boquelavkiy, L., Boukhgalter, B., Colangelo, M., Collins, S., Collymore, A., Cooke, P., Dearellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreita, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Horton, L., Hehozky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Melara, V., Riley, R., Subragania, J., Maylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Riley, R., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Mheeler, J., Wu, X., Wyman, D., Ye, W.J., Zinmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Summission

Direct Summission

Submitted (08-DEC-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

E 3 (Dases 1 to 187723)

Sinten, B. Nusbau, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barran, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farc, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hafez, N., Hange, P., FitzGerald, M., Maddenson, R., Major, J., Matthews, C., McCathy, M., Maldrim, J., Monson, R., Major, J., Matthews, C., McCathy, M., Maldrim, J., Manches, L., Mihova, T., Mathews, C., McCathy, M., Maldrim, J., Mord, L., Mich, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Stojanovic, N., Talamas, J., Tayara, N., Raymond, C., Retta, R., Travers, M., Youseiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Tayaman, D., Young, O., Zainou, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Birren, B., Nusbaun, C. Jander, E., Ali, A., Allen, N., Anderson, S., Barren, B., Nusbaun, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chaspal, Y., Collymore, A., Cook, A., Cook, P., DeArellano, K., Dewar, K., Diaz, J. S., Dodge, S., Paro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Graham, L., Grand-Pierre, M., Hafez, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Kalls, G., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marga, V., McCarthy, M., Meldrim, J., Menga, L., Mihova, T., Menga, V., Murphy, T., Naylor, J., Monyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Paerre, N., Raymond, C., Retta, R., Stee, C., Sewery, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Youshiley, W., Viel, R., Vord, W., Wilson, B., Wu, X., Wyman, D., Young, G., Zalnoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct, Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (01-JAM-2003) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Jan 1, 2003 this sequence version replaced gi:25229251.
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (24-NOV-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 4 (bases 1 to 187723)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------ Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www-seq.wi.mit.edu
Contact: sequence submissions@genome.wi.mit.edu
------- Project Information
JOURNAL
REPERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
```

```
Only the last 187.8 kilobases of this clone are being submitted. The remainder overlaps accession number AC100793 [WICGR project L20710].
                                                                                                                                                                                                                                  clone_lib="RPCI-11 Human Male BAC"
                                                                                                                1. .187723
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /rpt_family="Limb1"
2179_ .2477
/rpt_family="AluSx"
complement(2615. .2911)
/rpt_family="AluSx"
/rpt_ amily="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . rpt family="AluJb"
complement(7768.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="Alusc"
complement (5870. 6161)
/rpt_family="Alusc"
co73)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="uc
complement(8498, .8794)
/rpt_family="AluSx"
on96)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement (4111. .4146)
/rpt family="Alu"
complement (4149. .4235)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement (4236. .4377)
/rpt_family="AluSq/x"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (5415. .5621) /rpt_family="Aluy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /rpt_family="AluJo"
complement(6859, 7124)
/rpt_family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /rpt_family="Alusq/x"
complement (4382. .4681)
/rpt_family="Alusc"
5013. .5033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (5676. .5869)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (6162. .6273)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="AluSx"
complement(8798. .9096)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="AT_rich"
5076. .5363
                                                                                                                                                                                                                                                                                 322. .337 ryt_family="GA-rich"
                                                                                                                                                                                                                                                                                                                                                      49. ..685
rpt_family="GA-rich"
Center clone name: 506_G_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="T-rich"
                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                 rpt_family="AluJb"
                                                                                                                                                                                                                                                                                                                   138. ... 648
rpt_family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                         'rpt_family="AluSx"
272. 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="AluJb"
1521. .3821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'rpt_family="AluSq"
                                                                                                                                                                                                                    clone="RP11-506G7"
                                                                                                                                                                                                                                                                                                                                                                                                                                      rpt_family="LlME1"
332. .1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rpt_family="AluSg"
629. .2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="AluSc"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="Aluy"
4035. .4092
                                                                                                                                                                                                    map="17"
```

us-08-731-499-4.rge

Db 44942 ACTGTCCTTGAGGCTGGAGACTTGACTTTATATGTGTTCACACATGTAAGTA 45001 Qy 959 CATACACACAGGCTGCAGCACATGCTTCTCCTCCTCCTCCCCCCTTTAGCT 1018	RESULT 12 E50584 LOCUS B50584 LOCUS B50584 LOCUS B50584.1 G1:2255007 VERSION VERSION VERSION S50584.1 G1:2255007 KEYWORDS SOURCE ORGANISM Homo sapiens BUKATYOCA: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. AUTHORS AUTHORS KALO, S. and Saeki, M. TITLE Human protein and cDNA [3] JOURNAL Satent: JP 2001161368-A 4 19-JUN-2001; SCIENCE & FECH AGENCY COMMENT SCIENCE & FECH AGENCY SCIENCE & FECH AGENCY COMMENT PR 06-DEC-1999 JP 1999346864 PI SEIJI KATO, MIHORO SAEKI DC CI2NIS/09, CO7K14/47, C07K16/18, C12NI/15, C12NI/21, C12NS/ PC	FEATURES
repeat_region complement(90979390) repeat_region complement(1002110164) repeat_region complement(1002110164) repeat_region 1067610718 repeat_region 109811286 /rpt_family="LIMC4a" repeat_region 7.pt_family="LIMC4a" repeat_region 7.pt_family="LIMC4a" repeat_region 7.pt_family="LIMC4a" repeat_region 7.pt_family="LIMC4a" /rpt_family="LIMC4a"	Query Match 24.7%; Score 644; DB 9; Length 187723; Best Local Similarity 100.0%; Pred, No. 6.5e-136; Matches 644; Conservative 0; Mismatches 0; Indels 0; Gaps 0; QY 539 GAGTYCCACGGCTGGATGGCGGCTTCCACGCCCTACACGCAGGG 598 Db 44582 GAGTYCCACGGCTGGATGACCATCTACTGCGGGCTTCCAGGCCTACAGCAGGG 658 Db 44642 CACAAGGCCGAGATCATCACTGTCAGCGGTTCACAGGCCTACAGGAGGG 658 Ch 599 CACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCTTCACAGTTCTTCTAGCAGGG 658 Ch 659 CACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCTTCAAAAGGAGCCTTTCAGAGGG 74701 Cy 659 CACAAGGCCCAGATCATCATCACCCCTTTCCAGGGCTTTCAAAAGGAGACAGAC	

ò a 8 셤 ò 셤 ò 셤 È g

```
PAT 18-DEC-2003
                                                                                                                180
                                                                                                                                                                                             240
                                                                                                                                                                                                                                                         241 CTGAGGAAGAAAGGGAACCTCGAGGTGGATGGATAAGAGCAAGTCCAGCTTCCTGATCATG 300
    241
                                        120
                                                                              301
                                                                                                                                                         361
                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                422 TGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAG 481
                                                                                                                                                                                                                                                                                                                                    301 TGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAG 360
                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                361 AACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGAGGATGAGGAG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  195 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGSTTCCTGTGGAGTCGATCCAGAT 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74
                                                                                                181 AACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGGAAGTCCAGATTGTATTAGAGGAAA
                                                                                                                                                                                                                                   CTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATG
                                                                                                                                                                                                                                                                                                                                                                                          AACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       542 TTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 TTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                          61 CCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTTC
                                                                              TGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGACCCCGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
      CCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGTCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109 CTGGGCTACTACGATGCCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               602 AAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 495;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 18.3%; Score 476; DB 6; Length 45
Best Local Similarity 99.6%; Pred. No. 6.4e-98;
Matches 476; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 495)
Edwards,J.-B.D.M., Jobert,S. and Giordano,J.-Y.
EST's and encoded human proteins
Patent: US 6639063-A 308 28-OCT-2003;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 308 from patent US 6639063.
AR412671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="unknown"
/wol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR412671.1 GI:40167781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                              242
                                                                                                                                                           302
    182
                                                                                                                                                                                                                                   362
                                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
AR412671
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                  셤
                                                                              $ B
                                                                                                                                                     Š
                                                                                                                                                                                         g
                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   intergenic region"

/codon start=1
/codon start=1
/poduct=nBRP9 (dermal papilla derived protein 9)"
/protuct=nBRP909523"
/db_xref="GI:19909523"
/db_xref="GI:19909523"
/translation="MAMSFEWPWOYRPPFFTLQPNVDTRQKQLAAMCSLVLSFCRLH
KQSSMTWMAAQESPLFWNVKLQRKLPVBSIQIVLEELRKKGNLEWLDKSKSSPLIMWR
RPEEWGKLIYQWVSRSGQNNSVFTLYELTNGEDTEDEEFHGLDEATLLRALQALQQEH
KABIITVSDGRGVKFF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AB014763 531 bp mRNA linear PRI 02-APR-2002 Homo sapiens mRNA for DERP9 (dermal papilla derived protein 9),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
362 CTGAGGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATG 421 CTGAGGAAGAAAGGGAACCTCGAGGGTTGGATAAGAGCAAGTTCCTGATCATGAAGGAACCTCGAGTTGGATAAGAGCAAGTCCAGGTTCCTGATAAGAGCAAGTCCTGATCGTTGGATAAGAGCAAGTCCTGATCGTGATCATG 300
                                                                              TGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAG 481
                                                                                                  301 TGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGGCCAG 360
                                                                                                                                                         541
                                                                                                                                                                           542 TICCACGGGTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCAC 601
                                                                                                                                                                                                                                                       421 TTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ikeda.A., Ukal,Y., Yamashita,M. and Yoshimoto,M.
Direct Submission
Direct Submission
Submitted (21-MAY-1998) Akiko Ikeda, Taisho Pharmaceutical Co.,
Ltd., Molecular Biology Lab.; 1-403 Yoshino-cho, Ohmiya, Saitama
330-8330, Japan (E-mail:s12910@ccm.taisho.co.jp, Tel:048-663-1111.
Pax:048-652-7254)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mamaalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

(Dases 1 to 531)

Ikeda,A., Ukai,Y., Yamashita,M. and Yoshimoto,M.
Unolecular cloning of a dermal papilla derived gene
Unpublished

2 (bases 1 to 531)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note="similar to hypothetical 23.6 kd protein yuhl-ura8
                                                                                                                                                       AACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 20.4%; Score 531; DB 9; Length 531; al Similarity 100.0%; Pred. No. 1.7e-110; 531; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AB014763.1 GI:19909522
DERP9 (dermal papilla derived protein 9)
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .531
/gene="derp9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="derp9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                          422
                                                                                                                                                       482
                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
AB014763
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
```

ö

ઠે 셤

```
/codon_start=1
/protein_id="CAP14613.1"
/db_xref="G1:40975930"
/translation="MAMSFEWPWQYRPPFFTLQPNVDTRQKQLAAWCSLVLSFCRLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KQSSMTVMEAQESPLFNNVXLQRKXPVESIQIVLEELRKKGNLEWLDKSKSSFLIMWR
RPEEWGKLIYQWVSRSGQNNSVFTLYELTNEEDTEDFEFHGLDEATLLRALQAY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                               PAT 15-JAN-2004
                                                               468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTATTAGAGGAACTGAGGAAGAAGAGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 314
 408
                              314
                                                                                                                                CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                 375 CAGGAGTGGCCAGAACACTCCGTCTTTACCCTGTATGAACTGACTAATGAGGAAGACAC 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194
                                                                                            315 CTTCCTGATCATGTGGGGGGGGGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTC 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74
                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCC 586
                                                                                                                                                                                                                 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCC 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28. .156
/note="Von Heijne matrix score 4 seq AAWCSLVLSFCRL/HK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCCGCTCTTCAACAACGTCAAGCTACAGCCAAAGCTTCCTGTGGAGTCCATCAGAT
                             255 TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTACGITTACAACCGAATGIGGACACTCGGCAGAAAGCAGCTGGCCCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              195 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGSTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                               CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dumas Milne Edwards, J.B., Jobert, S. and Giordano, J.Y. ESTs and encoded human proteins
Patent: EP 1104808-A 308 06-JUN-2001;
Genset (FR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18.3%; Score 476; DB 6; Length 495; 99.6%; Pred. No. 6.4e-98; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="unnamed protein product"
                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                        Sequence 308 from Patent EP1104808. AX969505. AX969505.1 GI:40975929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .495
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . >495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 476; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sig_peptide
                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            255
                                                               409
                                                                                                                              469
                                                                                                                                                                                              529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               349
349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
                                                                                                                                                                                                                                                                           RESULT 15
AX969505
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                            8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                  쉽
                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                             Š
                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                        ď
```

```
468
               315 CTTCCTGATCATGTGGCGGGGGCCCAGAAGAATGGGGGAAACTCATCATCAGTGGGTTTC 374
                                                   CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                          529 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCC 586
                                                                                                                                    492
                                                                     CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                          435
                                                      469
409
                  g
                                                                           g
                                                                                                                                   셤
                                                     ò
                                                                                                       8
```

Search completed: June 29, 2005, 01:05:55 Job time: 7490.35 secs

```
June 28, 2005, 14:28:52; Search time 911.543 Seconds (without alignments) 16917.381 Million cell updates/sec
5.1.6
Compugen Ltd.
GenCore version
Copyright (c) 1993 - 2005
                                                                        - nucleic search, using sw model
                                                                                                                                                                                      US-08-731-499-4
                                                                                                                                                                                                          Perfect score:
                                                                        OM nucleic
                                                                                                              Run on:
```

2605 1 CAAGCTCGAAATTAACCCTC......CTGGCGTTACCCAACTTAAT 2605 8780412 Total number of hits satisfying chosen parameters: 4390206 seqs, 2959870667 residues Gapop 10.0 , Gapext 1.0 IDENTITY NUC Scoring table: Searched: Sequence:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries geneseqn2000s:* geneseqn2001as:* geneseqn2001bs:* geneseqn2002as:* geneseqn2003cs:* geneseqn2003ds:* geneseqn2004as:* geneseqn2002bs:* geneseqn2003as:* geneseqn2003bs:* N_Geneseq_16Dec04:* geneseqn1980s:* geneseqn1990s:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004bs:*

SUMMARIES	Description	AAV04699 Homo sapi	AAA40516 Aaa40516 Murine ad	AAIS9037 Aais9037 Human pol	ADQ99260 DNA encod	Adb49020	_	AAH68547 Aah68547 Human pro	ADQ84631 Human tum	ABQ57032 Human col	ABQ56941 Abq56941 Human col	ADQ50360 Adq50360 Novel can	ABQ56838	ABQ56915 Abq56915 Human col	ABX17514 Human cDN	ABQ56970 Abq56970 Human col	Abv89089	BV88953 Human col	BK39342 DNA encod	CA11671 Acal1671 Human lun	
٠,	1	AAV	AAA,	AAI	ADO	ADB.	AAI	AAH	ğ	ABO	ABO	ğ	ABO	ABO	ABX:	ABO	ABV	ABV	ABK	ACA.	
	DB DB	7	٣	4	'n	σ	4	Ŋ	13	9	9	13	9	9	6 0	9	9	9	9	80	•
	% Query Match Length DB	2605	1089	1243	1243	1243	1098	1087	1100	634	559	675	507	609	545	349	269	269	269	269	•
	Query Match	100.0	41.8	41.3	41.3	41.3	41.3	41.2	41.2	23.2	19.8	18.8	17.8	15.2	13.6	12.2	10.3	10.3	10.3	10.3	•
	Score	2604.6	1089	1076.2	1076.2	1076.2	1075	1073	1073	603.6	515.8	489.2	464.4	395	353.6	317.4	269	269	269	269	000
	Result		7	3	4	2	9	7	80	0 0	10	11	c 12	13	14	15	16	c 17	c 18	c 19	0

Adh46899 Human lun Aby86807 Human col Adb56763 Toxicity- Aaa43467 Mouse sec Aav26672 Mouse sec Aav26672 Human pro Abv37980 Human pro Abv37980 Human pro Abv37980 Human pro Adf66557 Novel hum Adf66557 Human sec Aaf66557 Novel hum Adp28751 Human pol Adp28751 Human pol Adp28751 Human pol Ach31848 Human bon Ach31848 Human bon Aav26673 Mouse nov Abx38439 Bovine Es Aaz30709 Rat neuro Aaz28264 Rat neuro Aaz28264 Rat neuro Abx73395 Human cDN Abx73395 Human nov Abx73395 Human nov	Aav32370 Complete Aaa59039 Nucleotid Aba94248 Adenoviru Adb75145 Plasmid p
ADH46899 ADJ20818 ABV86897 ADB68697 ADB68697 AAA43467 AAA228672 ABV2168 AAC0815 AAF66657	AAV32370 AAAS9039 ABA94248 ADB75145
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10
269 269 269 490 490 276 276 270 217 217 217 217 217 217 217 217 217 217	8710 8710 8710 8710
01010 0000 0000 0000 0000 0000 0000 00	0 0 0 0 0 0 0 0
269 253 260 253 260 253 260 219 219 219 219 219 219 219 219 219 219	146.2 146.2 146.2 146.2
221 222 222 222 222 223 333 333 333 41 41	4 4 4 4 2 6 4 4 3 5 4 4 3
0000 0 0 00 0000	υυυυ

ALIGNMENTS

20q13 amplicon; chromosome 20; tumour; detection; chromosomal abnormalities; probe; gene therapy; antisense inhibition; treatment; age-related macular degeneration; retinitis pigmentation; Leber's congenital amaurosis; ds. Rommens Kowbel D, Homo sapiens 20q13 amplicon cc43 transcript. Godfrey T, AAV04699 standard; cDNA; 2605 BP. Hwang S, 96US-00680395. 96US-00731499. 97US-00785532. 97WO-US012343. (first entry) (REGC) UNIV CALIFORNIA. Collins CC, 15-JUL-1996; 16-OCT-1996; 17-JAN-1997; Homo sapiens. WO9802539-A1 15-JUL-1997; 21-JUL-1998 22-JAN-1998. Gray JW, AAV04699; RESULT 1 AAV04699

The sequence is that of a cDNA sequence cc43, which was isolated from the 20q13 amplicon. It is expressed in normal tissues but not been found in the breast cancer cell line. It can be as a probe for the detection of chromosomal abnormalities at 20q13. It and other sequences isolated New sequences from the 20q13 amplicon - used for detecting chromosomal abnormalities, particularly tumours, and for developing products for treating diseases. Claim 1; Page 62; 91pp; English.

۲,

WPI; 1998-110587/10.

from the 20q13 amplicon are consistently amplified in primary tumours. These sequences are useful as probes or as probe targets for monitoring the relative convention of corresponding sequences from a biological 88888888888888888

100.08;	and monoclonal antibodies that specifically bind the gene products. The products can also be used in the treatment of other diseases, e.g. agerelated macular degeneration, Leber's congenital amaurosis and retinitis pigmentation Sequence 2605 BP; 698 A; 625 C; 549 G; 732 T; 0 U; 1 Other;
Best Local Similarity 100.0%; Pred. No. 0; Matches 2604; Conservative 1; Mismatches 0; Indels 0; Gaps	,0
CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCCACGGGGTGGCGG	60
CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGAATTCGGCACGAGGTGGGCTACTAC	120
GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTACGTTACA	180
ACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCCCTGGTGCTCGCTGGTCCTGTCCTT	240
CTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAAGGAGAGCCCGGCTCTT	300
CAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGA 	360 360
ACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCAT 	420
GTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA 	480
GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA 	540 540
GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGAGAGCA 	009
CAAGGCCGAGATCATCATCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACC 	099
TGTCTCCCTTTACTTCTTACCTCCCACTTTCCAGGCTTTCAAAAGAGAGACACAG 	720
tgtcccccaaagactggatctgtgactccaccagactcaaaaggactccagtcctgaagg 	780
CTGGGACCTGGGGATAGGTTTCTCACACCCCATATGTCTGTGCCCTTGGATAGGTGAGGC 	840 840

දු සි	841	TGAACCACCAGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGAC 900 TGAAGCACCAGGAAAAATATGTGTGCTTCTTCTCGCCCTACCTTCCCATCCTAGAC 900 TGAAGCACCAGGGAAAAATATGTGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGAC 900
à	901	TGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA 960
Q	901	TGTCCTTGAGGCAGGGTCTGTAAAACCTGAACCTTTATATGTGTTCACACATGTAAGTACA 960
ð í	961	TACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCACCCCTTTAGCTGC 1020
qo ,	961	TACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCCCTTTTAGCTGC 1020
& A	1021	021 TGTTGCCTCCTTGTGGGCTGGTGGTTGGTTCGTTCCTTGGGGATTGGGGAAGCCTGGC 1080 021 TGTTGCTTCCTTCTCAGGCTGGTGCTTGGATCCTTCCTAGGGGATGGGGAAGCCCTGGC 1080
ò	1081	TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGGTGAGAGGT 1140
DP	1081	TGCAGGCAGCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGT 1140
ठे व	1141	GTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCCAAAAAAAA
on d	1201	GIGGCCCCACACAGAITATIGATATIAAAATCICCAACICCCAAAAAAAAAA
· 유	1201	CTGAGACTAGTTCTCTCTCTCTCGAGAACTASTCTCGAGTTTTTTTTTT
à	1261	TITITITITITITITITITIGGCITITAAGGATTITATIGTITICCTCTITACAGTGTCC 1320
q	1261	TTTTTTTTTTTTTTTTTTTTTAAGGATTTATTTATTTAT
λ	1321	ACTITICICIACITAATACTACITICCAGICICCAGAGGCCAGAGGGAAAAAAAAAGAC 1380
Db	1321	ACTITICICIACITAATACTACTATCCAGAGCCCAGAGGGAAAAAAAAAA
δ	1381	CAIGAATCTTCCTCCCCAGATTAAAGTACACACTTTGGAAAACAGATTGGAAAACCTTT 1440
Db	1381	CATGAATCTTCCTCCCAGATTAAAGTACACACTTTGGAAAACAGATTGGAAAACCTTT 1440
à	1441	CTGAAAAAGTTGACTGAAAGTCCAAACCAACATGCCATATTGTTGATGTTGCTCATGA 1500
Dp	1441	cigaaaaaagirgacigaaaciccaaaccaacaigccaratigiiggiggiggiggiggiggigaa 1500
à	1501	AATTGTTAAAAACCTGTTCTAGATAAAGAACAGTCTCAAGTTTTTGTACAGCCTACACAT 1560
Dp	1501	AATTGTTAAAAACCTGTTCTAGATAAAGAACAGTCTCAAGTTTTTTGTACAGCCTACACAT 1560
δ	1561	AGTACAAGGGTCCCCTATGATGATTCTTCTGTAGGACGAAATAATGTAATTTTTCAGTT 1620
Dp	1561	AGTACAAGGGTCCCCTATGATGATTCTTCTTAGGACGAAATAATGTAATTTTTTTCAGTT 1620
à	1621	TCTGGTTTATAACTCTCTCGATCTCAGAGTTGACTGATTAAAACACCTACTCATGCAACA 1680
Q Q	1621	TCTGGTTTATAACTCTCTGGATCTCAGAGTTGACTGATTAAAACACCTACTCATGCAACA 1680
λŏ	1681	GAGAATAAAGCACTCATATTTTATAAATTATAGGACCAAACTATTTTGGAAATCTTAT 1740
DP	1681	
λŏ	1741	
ДQ	1741	
à	1801	
QQ	1801	TAACCTCAATGACTTAGAATGCTTTGCTATATTTTGCCTCTATGCCTCAACCACACTGGC 1860
۸,		
ନ୍ଧ	1861	

g

8 6

8

6 B

g

6 6 6

셤 δ g ઠે g ઠે g ઠે 셤 ઠે 요 ò 용

```
Secreted human proteins AS296-1i and AS34-1i, useful for treating tumors, autoimmune diseases, inflammatory disorders, wounds, microbial infections and viral diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               770
                                                                                                                                                                                                                                                                                                                                                                        This invention describes novel secreted human proteins (I) which have cytostatic, immunostimulatory, antimicrobial, antiviral, immunostimulatory, antimicrobial, antiviral, immunospipressive, antihinflammatory and vulnerary activity and which act as cytokine, cell proliferation or differentiation regulators. (I) is useful for treating tumors, autoimmune diseases, inflammatory disorders, wounds, microbial infections and viral diseases. (I) is also useful for suppressing graft versus host reaction. AAA40490-AA40580 represent cDNA fragments that encode the secreted proteins AAB10226-B10288 described in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              171 TTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGGCTCGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 Tracerracaacceaareregacacreeceagaacacreececeeceeceeceeceeceecee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 recrerectrecececedeacaacaerecageargaegereargaegaagereagaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAAGCTTCCTGTGGAGTCGATCCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGGAAGACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGATGAGGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGTCCTTCTGCCCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 AGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAG
                                                                                             ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 41.8%; Score 1089; DB 3; Length 1089; Best Local Similarity 100.0%; Pred. No. 6.7e-214; Matches 1089; Conservative 0; Mismatches 0; Indels 0
                                                                                                Evans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1089 BP; 263 A; 299 C; 284 G; 243 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     111 GGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCT
                                                                                                ľ,
                                                                                                Collins-Racie
                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 225-226; 293pp; English
                                                                                             Lavallie ER,
                                                                                                                      Bowman MR;
  98US-00220876
                                                                                             Mccoy JM, 1
Treacy M,
                                              (GEMY ) GENETICS INST
                                                                                                                                                                WPI; 2000-442661/38.
P-PSDB; AAB10244.
    23-DEC-1998;
                                                                                        , κ
υ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                      Merberg
                                                                                                Jacobs
  SX CC CC CC CC X EX FT FT X X B X X B X X B X X B X X B X X B X X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                         2100
                                                                                                                                                                                                                                                                                    2160
                                                                                                                                                                                                                                                                                                                                   2160
                                                                                                                                                                                                                                                                                                                                                                                                                                 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2521 GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA 2580
                                                                                                                      CTTCAGATCCTGCCGTAAAACTCTTCTTATAGAAGCCTGTCATGACACTGTCTCTCTTC
                                                                                                                                                                                                                                                                                                             2221 GATCACCACTTAGTACAGTAGGAACACAGTAAAGATTCAATTGGTATTTGTGGAATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiviral, immunosuppressive; antiinflammatory; vulnerary; cytokine; cell proliferation, differentiation; regulator; treatment; tumor; autoimmune disease; inflammatory disorder; wound; microbial infection; viral disease; graft versum host reaction suppression; se.
                                                                                                                                                                                                                                                                                                                                                                                                           CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCGTAAAGGTGGGGTCCTTCCAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCGAATCCAAGGCTAGATAGACTTAGTGTTACTCAAGAAAGGGTAGCCTGAAAATAAA
                                                                                           CTTCAGATCCTGCCGTAAAAACTCTTATAGAAGCCTGTCATGACACTGTCTTTC
                                                                                                                                                                                                                                     CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCCGTAAAGCTGGGATCCTTCCAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAATGAATTGTTTTGCTAGTAAAGTCTGGGGGAACCCCAGGTGAGAAGACCTAGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2281 GAATGATTGTTTTGCTAGTAAAGTCTGGGGAACCCAGGTGAGAAGAGCCTAGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCGAATCCAAGGCTAGATAGACTTACTGTTACTCTCAAGAAAGGGTAGCCTGAAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGACAGGGCTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAATTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCTCTTAAGAATTCTATTTCCTTAATTCTTTATCTGGGTAACTTAGTTTTATCCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Secreted protein; cytostatic; immunostimulatory; antimicrobial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine adult spleen cDNA fragment AE402 li.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA; 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US031005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA40516 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200037630-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JUN-2000
                                                                                                                                       1981
1921
                                              1921
                                                                                             1981
                                                                                                                                                                                      2041
                                                                                                                                                                                                                                                                                    2101
                                                                                                                                                                                                                                                                                                                                                                                  2161
                                                                                                                                                                                                                                                                                                                                                                                                                                 2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA40516;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gb.
```

ö

```
The invention relates to human nucleic acids (AAIS7798-AAI61369) and the encoded polypeptides (AAM18642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral nervous system, such as peripheral nervous system, such as peripheral nervous system, such as peripheral son cantral nervous system diseases, such as Alzheimer's Parkinson's disease, Huntington's disease, amyotrophic lateral selerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, arthritis and inflammation, leukaemias and thrombolytic activity, arthritis and inflammation, leukaemias and C.N.S disorders Note: The sequence data for this patent did not form
   Wang D;
Zhao QA;
                                                                                                      Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGITACAACCGAAIGIGGACACICGGCAGAAGCAGCIGGCCGCCIGGICCICGCIGGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCTCTTCAACAACCTCCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              643 caccaccacacccacantcarcarcacaccarccaccacccacccacccaccrrrrrcrac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                  ر.
د
                                                                                                                                                                                                                                                                                                                                                                                                                                      41.3%; Score 1076.2; DB 4; Length 1243; llarity 99.7%; Pred. No. 3e-211; Conservative 0; Mismatches 3; Indels 0;
   Ren F,
Zhang
                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1243 BP; 313 A; 321 C; 326 G; 283 T; 0 U; 0 Other;
   Qian XB,
Yang Y,
   Y,
AJ,
                                                                                                                                                Claim 1; SEQ ID NO 1240; 10078pp; English
    Ma
 Asundi V, Chen R,
Wehrman T, Xu C,
R, Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                   of the printed specification
   Liu C, Asur
Wang Z, Wehr
Goodrich R,
                                                            WPI; 2001-442253/47.
P-PSDB; AAM39881.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 1078; Conserv
   Tang YT,
Wang J, 1
Zhou P, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    593
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                               1070
                                                                                                                                                                                                                                                                                                                                       1130
                                                                                                                                                                                                                      1010
                                                                                                                                                                                                                                                                                                                                                                                                1190
                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                            960
                  9
                                              830
                                                                         720
                                                                                                        830
                                                                                                                                   780
                                                                                                                                                                950
                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; CNS; Alzheimer's; Parkinson's disease; Humanostatic; amyotrophic lateral sclerosis; Shy-brager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                        TGTAAGTACATACACACATGCGCCTGCACCACATGCTTCTGTCTCCTCCTCCTCCCCC
                                                                                                                                                                                                                                                                                                CATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACA
                                                                                                                                                                                                                                                                               AAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCCACGGGCCTGGC
                                                                                                                                                                                                                                                                                                                                                        AAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                            Greendaaggeredgaacereggarggarriereacacecearargrerecerregar
                                                                                                     AGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTTCC
                                                                                                                                                              CATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACA
                                                                                                                                                                                                                      TGTAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCC
                                             GTCCTGAAGGCTGGGACCTGGGGATGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human polynucleotide SEQ ID NO 1240.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-UUN-2000; 2000US-00598042.
19-UUL-2000; 2000US-00620312.
03-AUG-2000; 2000US-0065450.
14-SEP-2000; 2000US-00662191.
19-OCT-2000; 2000US-00693036.
29-NOV-2000; 2000US-00727344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAIS9037 standard; cDNA; 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-00471275.
2000US-00488725.
2000US-00552317.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-DEC-2000; 2000WO-US034263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAAAAA 1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAAAAAA 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HXSE-) HXSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200153312-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-DEC-1999;
21-JAN-2000;
25-APR-2000;
20-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   leukaemia; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-2001
                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                               1011
                                                                                                                                                                                                                                                                                                                                                                                               1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1191
                                                                                                                                721
                                                                                                                                                                                         781
                                                                                                                                                                                                                                                   841
                                             771
                                                                         661
                                                                                                      831
                                                                                                                                                              891
                                                                                                                                                                                                                      951
                                                                                                                                                                                                                                                                                                                                                                  961
                  601
                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAI59037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
                                                                     ద
                                                                                                                        엄
                                                                                                                                                                                        셤
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                               QQ
                                             à
                                                                                                     å
                                                                                                                                                            ò
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                   8 b
                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

ö

172 222 232 282 292

342

412 462 472 522 532 582

402

592

642 652 702

δ 요 ઠે a ઠે g ઠે 셤 ò 8 8

유 ò 요 ઠે 요 δ g

```
The invention describes an isolated polynucleotide (1) comprising a fully defined (S1) of 749, 3188, 2484, 1169, 2395, 1467, 5773, 5714, 4041, 1372, 3996, 3945, 2735, 17182, 985, 1782, 927, 5714 or 2282 nucleotides as given in the specification, its translated or protein coding portion, its extracellular portion or its active domain. The GPCR-like polypeptides and polynucleotides are useful for the treatment of diseases of ophthalmic, neurological, immunological and nephritic systems. They also be used to treat hormonal dysfunction, cancer, atherosclerosis and diabetes. The antibodies are useful for detecting or quantitating the polypeptide in tissue. The polypeptides can also be used as molecular weight markers and as a food supplement. This sequence represents a human
                                                                                                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                                                                                                                                         232
                                                                                                                                                                                                                                                                                                                                                                                                                                                       282
                                                                                                                                                                                                                                                                                                                                                                                            222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA 892
nephritic systems and hormonal dysfunction, cancer, atherosclerosis
                                                                                                                                                                                                                                                                                                                                                                                163 GCGTCGACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 crearcarereceaseccasaaaaaareseseaaacrearcrareagegrrrecase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGACCTGTCTCCTTTACCTCCCACCTTTCCAGGGCTTTCCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGACCTGTCTCTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGITACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACCCAGTGTCCCCCAAAGACTGTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTCCTTCTGCCGCCTGCACAAACAGTCCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAGAGGAACTGAGGAAGAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                  Gape
                                                                                                                                                                                                                                                                                                   Length 1243;
                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                     Sequence 1243 BP; 313 A; 321 C; 326 G; 283 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                 Score 1076.2; DB 5; Length
Pred. No. 3e-211;
0; Mismatches 3; Indels
                                          ID NO 930; 92pp; English
                                                                                                                                                                                                                                          polynucleotide of the invention.
                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.7%;
Matches 1078; Conservative (
                                            SEO
                                            Example 2;
                                                                                                                                                                                                                                                                                                                                                                113
                                                                                                                                                                                                                                                                                                                                                                                                                         173
                                                                                                                                                                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       773
a
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음 &
                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                        1012
                                                                                                                                                                                                                                                                                                                                                                                                          1182
                                                                                                                                                                                                            943 TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG 1002
                                                                                                                                                                                                                                                                                                                  GCCCTGGCTGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                        882
              772
                                          822
                                                                        832
                                                                                                                                  892
                                                                                                                                                                942
                                                                                                                                                                                            952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New G-protein-coupled receptor-like polypeptides and polynucleotides, useful for treating diseases of ophthalmic, neurological, immunological
                               AGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                        GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTCCCA
                                                                                                                                                                                                                                                                         1003 TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCTCCTCCTCCTCCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                              GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAAGAAGACCCCACGGGCCTGGCAG
               AGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACAGACTCAAAAGGACTCCAGT
                                                                                                                                    GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                                                                                                                                                            TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                        TAAGTACATACACACGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ophthalmological; immunomodulatory; cytostatic; antiatherosclerotic; antidiabetic; GPCR-like protein; ophthalmic disorder; neurological disorder; meunological disorder; nephritic disorder; hormonal dysfunction; cancer; atherosclerosis; diabetes; molecular weight marker; food supplement; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human GPCR-like protein segid 930.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADQ99260 standard; cDNA; 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         돮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JAN-2000; 2000US-00488725
25-APR-2000; 2000US-00552317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUL-2000; 2000US-00620312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-442255/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1193 A 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US6569662-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAY-2003.
                                                                                                   823
                                                                                                                                                                                                                                                                                                                  1013
                                                                                                                                                                                                                                                                                                                                                1063
                                                                                                                                                                                                                                                                                                                                                                              1073
                                                                                                                                                                                                                                                                                                                                                                                                          1123
                                                                                                                                                                                                                                                                                                                                                                                                                                        1133
                                        763
                                                                        773
                                                                                                                                  833
                                                                                                                                                              883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1243
                                                                                                                                                                                            893
                                                                                                                                                                                                                                                        953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ľ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADQ99260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
```

ö

ö 172

Gaps

232

282

222

292 342 352 402 412 462 472 522 532 582 592

```
from USPTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGAGCACAAGGCCCAAGATCATCACTGTCAGCGATGCCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGAACACTTTATATATGTGTTTCACACATG
                                                                                                              113 GCTACTACGATGGCGATGAGTTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                            CTGTCCTTCTGCCCCCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGGC
                                                                                                                                                                                                                                                                                    ccecrcrrcaacaacercaaceracaeceaaaecrrccrereaeaercearccaearrera
                                                                                                                                                                                                                                                                                                                           TTAGAGGAACTGAGGAAGAAGGGAACTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                             CTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                           CTGATCATGTGGCGGGGGCCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                        GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGGACCTGTCTCCCTTTACCTCCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAGTACATACACACACACGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAAGTACATACACACATGCGCCTGCACACATGCTTCTGTCTCCTCCTCCTCCCCCT
                                                                                                                            GCGTCGACGATGCCCATGAGTTTCGAGTGGCCCTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                              ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                              CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                            TTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACCCAGTGTCCCCCAAAGACTGGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                             Length 1243;
                                                                                     ;
0
 specification but was obtained in electronic format directly at seqdata.uspto.gov/sequence.html?DocID=20030104529.
                                      Sequence 1243 BP; 313 A; 321 C; 326 G; 283 T; 0 U; 0 Other;
                                                             Score 1076.2; DB 9; Length Pred. No. 3e-211; 0; Mismatches 3; Indels
                                                              41.3%;
                                                                          Best Local Similarity 99.7
Matches 1078; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1063
                                                                                                                                                             173
                                                                                                                                                                                     223
                                                                                                                                                                                                                                      283
                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                             533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1013
                                                                                                                                      163
                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                              293
                                                                                                                                                                                                                                                                                                              353
                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                            473
                                                                                                                                                                                                                                                                                                                                                                                                                                     523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    883
                                                                                                                                                                                                                                                                                                                                                             413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           713
                                                                Query Match
     ន្តដូល
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                   셤
                                                                                                                                                                                a
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                               ò
                                                                                                                                                             ð
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                       ð
                                                              1002
                                                                                       1012
                                                                                                              1062
                                                                                                                                      1072
                                                                                                                                                             1122
                                                                                                                                                                                     1132
                                                                                                                                                                                                              1182
                                                                                                                                                                                                                                      1192
                                                                                                                                                                                                                                                  942
                                       952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a polynucleotide comprising a sequence given in the specification, or its mature protein-coding portion, or its complement. The polynucleotide is useful for treating diseases e.g., cancer or neurodegenerative diseases and many others listed in the specification. The present sequence represents a novel human cDNA. Note: The sequence data for this patent did not form part of the printed
                                                                                                                                                                                                      1123 GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                              rectagaciterectricageceaegerergraaacereaegererratarerreaegere
                                                                                                     1003 TAAGTACATACACACACATGCGCCTGCACACATGCTTCTGTCTCCTCCTCCTCCTCCTCCTCCTCCTCT
                                                                                                                                                              TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCTACCT
                                                                                                                                      GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGCCTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e.g., cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer; neurodegenerative disease; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polynucleotide, useful for treating neurodegenerative diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 930; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Asundi V,
                                                                                                                                                                                                                                                                                                                                                                          ADB49020 standard; cDNA; 1243 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel human cDNA SEQ ID NO 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JAN-2000; 2000US-00488725.
25-APR-2000; 2000US-00552317.
19-JUL-2000; 2000US-00620312.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JAN-2002; 2002US-00037270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIU C.
ASUNDI V.
DRMANAC R T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-678194/64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tang YT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZHOU P.
TANG Y T.
                                                                                                                                                                                                                                                                                                            A 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2003104529-A1
                                                                                                                                                                                                                                                                                       A 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2003
                                                             943
                                                                                                                                                                                                                                                                                     1193
                                                                                                                                      1013
                                                                                                                                                                                                                                      1133
                                                                                                                                                                                                                                                                                                              1243
                                      893
                                                                                       953
               883
                                                                                                                                                                                     1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ZHOU/)
(TANG/)
(LIUC/)
(ASUN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (DRMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88;
                                                                                                                                                                                                                                                                                                                                                8 6 8
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                      g
                                     à
                                                          셤
                                                                              S
S
                                                                                                                              8
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                            à
```

642

702

712 762 772

652

822

832 882 892 1012

1062

1002

942 952 1072

```
168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               588
                                                                                                                                                                                                                                                                                                                                                                           228
                                                                                                                                                                                                                                                                                                                                                                                                                                                      288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   767
    888888
                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
    1132
                                                                          Wang D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM3642-AAM42131) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral nervous localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as Immune system suppression, Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; CMS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral solerosis; Shy-Drager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation; leukaemia; ss.
GCCCTGGCTGCAGGCGTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                    GCCCTGGCTGCAGGCACCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCCTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  eic acids and polypeptides, useful for treating disorders nervous system injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ren F, Wa
Zhang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qian XB,
Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ma Y, (
Xue AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 4812; 10078pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ındi V, Chen R,
ırman T, Xu C, X
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                             Human polynucleotide SEQ ID NO 4812
                                                                                                                                                                                                                                                                                            ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-DEC-1999; 99US-00471275.
21-JAN-2000; 2000US-00488725.
22-APR-2000; 2000US-00552317.
20-JUN-2000; 2000US-00598042.
19-JUL-2000; 2000US-00598042.
19-JUL-2000; 2000US-00653450.
14-SEP-2000; 2000US-00653191.
19-OCT-2000; 2000US-00653036.
29-NOV-2000; 2000US-00693034.
                                                                                                                                                                                                                                                                                            CDNA; 1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-DEC-2000; 2000WO-US034263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu C, Asundi V,
Wang Z, Wehrman T,
Goodrich R, Drmanac
                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-442253/47.
P-PSDB; AAM41667.
                                                                                                                                                                                                                                                                          1823/c
AAI60823 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HYSE-) HYSEO INC
                                                                                                                                                                                             À 1243
                                                                                                                                                       A 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200153312-A1
                                                                                                                                                                                                                                                                                                                                                                       22-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          central
                                      1123
                                                                                                                                                       1193
  1073
                                                                                                                                                                                             1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YT,
                                                                                                                                                                                                                                                                                                                                 AA160823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ب
۳ ر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tang
Wang
Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                    RESULT 6
AA160823,C
XX
AA260823,C
XX
AA260
DT 22-0.0
DT 22-0.0
DX Human
XX
AB21,C
XX
AB21,C
XX
AB21,C
XX
AB21,C
AB
                            g
                                                                          δ
                                                                                                    g
                                                                                                                                                     8
                                                                                                                                                                                     셤
```

```
1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCTTTAGCTGCTGTTGCCTCCTTCTCAGGCTGGTGGTGGTGGTCTTCCTAGGGGATG 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and C.N.S disorders. Note: The sequence data for this patent did not form part of the printed specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847 TTGTATTAGAGGAACTGAGGAAGAAAAAGGGAACCTCGAGTGGTTGGATAAAGAGCAAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108 GCTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1087 GCTGGCCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1027 TCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          967 redrecrerectricie de de contra de la reconsta del reconsta del la reconsta del la reconsta del la reconsta de  la reconsta de la reconsta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          907 AGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAGGATGAGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTTCTGCAGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGG-CCGAGGCGTCAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCCGAGGCGTCAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 547 TTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGACAGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACAGACTCAAAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGATAGGGTGAGGCTGAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACATGTAAGTACATACACACGTGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACATGTAAGTACATACACACATGCGCCTGCAGCACATGTTCTGTCTCCTCCTCCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                            Score 1075; DB 4; Length 1098;
Pred. No. 5.1e-211;
0; Mismatches 0; Indels 1
                                                                                                                                                                                                                                                    U; 0 Other;
                                                                                                                                                                                                                                                    T; 0
                                                                                                                                                                                                                                                    Sequence 1098 BP; 245 A; 287 C; 308 G; 258
                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.9%;
Matches 1086; Conservative
```

Thu

168

74

134 288 194 348 254 408 314 468 374 528 434 588 494 648 554 708 614 768 674 828 734

```
CTAGCAGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAAACCTGACACTTTATATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCTGGTGCTCGCT
                                                                                                                                                                GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                       TGTATTAGAGGAACTGAGGAAGAAAGAACCTCGAGTGGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAAATTCTATCATCTATCAGTGGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAGGGTGAGGCTGAAGCACCAGGGAAAATATGTGCTTCTTCTCTCGCCCTACCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGIAAGIACAIACACACACAIGCGCCIGCAGCACAIGCIICTGICCICCICCICCICCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                              TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                   CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTAGCAGGACCTGTCCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGACAGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACCAGGACTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCCAACTCCC 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1035
                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1129
601
                                  15
                                                                                                                                                                                                                                                        195
                                                                                                                                                                                                                                                                                            349
                                                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                                                                            469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      949
                                                                        169
                                                                                                           75
                                                                                                                                               229
                                                                                                                                                                                 135
                                                                                                                                                                                                                      289
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                      õ
                                                                                                   8
                                                                                                                                           Š
                                                                                                                                                                        a
                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                    1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                           TGGCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAAACTCCCAAAAA 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is a human protein coding sequence. The human protein, preferable as a pototin, preferable as a drug, a reagent for studying intracellular protein networks and a protein source for screening proteins for binding low molecular weight drugs. The human protein coding sequence is useful for gene diagnosis and gene therapy, expression vectors and transformant cells for detection of ligands and receptors
                                                                      68
                                                                                                                                             ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human protein originated from tumor cell line, applicable as drug, reagent for studying intracellular protein networks and protein source for drug screening, also encoded cDNA for gene diagnosis and gene
GGGGAAGCCCTGGCTGCAGGCACCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCC
                                                       GGGGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCC
                                                                                                                            67 TGGCAGTGAGAGTGTGGCCCCACATTTATGATATTAAAATCTCAACTCCCAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
41.2%; Score 1073; DB 5; Length 1087;
Best Local Similarity 100.0%; Pred. No. 1.38-210;
Matches 1073; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G; 249 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 169-171; 471pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                             seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 246 A; 304 C; 288
                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-1999; 99JP-00346863.

06-DEC-1999; 99JP-00346864.

08-EEB-2000; 2000JP-0031062.

10-FEB-2000; 2000JP-00034090.

10-FEB-2000; 2000JP-00034091.

14-FEB-2000; 2000JP-00035829.

14-FEB-2000; 2000JP-00035899.

14-MAR-2000; 2000JP-001361.

30-MAY-2000; 2000JP-001361.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (NISC-) JAPAN SCI & TECHNOLOGY
                                                                                                                                                                                                                                                                                                                 CDNA; 1087
                                                                                                                                                                                                                                                                                                                                                                                                                         Human protein HP10149 coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-JP008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Σ
                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                 AAAAAA 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-381646/40.
P-PSDB; AAG93262.
                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                    AAAAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eguchi C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200142302-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUN-2001
                                                                                                         1127
                                                                                                                                                                                 1187
                                  1067
                                                                                                                                                                                                                                                                                                              AAH68547
                                                                      127
                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                  AAH68547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kato
                                                                                                                                                                                                                                                                         AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH68547
AAH
                                                             g
                     ò
                                                                                                       ò
                                                                                                                                  8 8
                                                                                                                                                                                                            9
```

1128

1034

1008

914

888

794

948

854

1068

```
The present invention describes an isolated tumour-associated antigenic target (TAT) nucleic candid comprising; (a) any of 4622 nucleotide equences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of (a), (c) the complement of (a) or (b); (d) a sequence that has 80% equences (see to (a)-(c); or (e) a sequence that hybridises to (a)-(c). Also described: (1) an expression vector comprising the above nucleic acid; (2) a host cell comprising the above expression vector; (3) a process for producing a polypeptie; (4) an isolated polypeptide comprising: (a) an amino acid sequence encoded by any of the above nucleotide sequences; or (c) a sequence; (c) an isolated above polypeptide; (4) an isolated polypeptide (c) an isolated antibody that binds to the above polypeptide; (b) an isolated oligopeptide; (c) an isolated antibody that binds to the above polypeptide; (d) an isolated oligopeptide; (d) a process or comprising the attribody; (8) an isolated oligopeptide; (7) a process or producing the above polypeptide fused to a heterologue polypeptide; (d) an isolated oligopeptide; (d) a process or composition of matter comprising the attribody; (e) an isolated antispent calcent, (d) a misolated oligopeptide (TAT) and composition of matter comprising to the above polypeptide; (d) an isolated oligopeptide; (d) an enchody, oligopeptide or TAT binding organic molecule; in combination of the composition of matter comprising the acartism; (11) an article of manufacture comprising anotation of matter comprising the acartism; (11) an article of manufacture comprising ordanic molecule; (13) an method of a cell that expresses the above protein; (d) and animal; (l6) a method for treating or preventing a cell that appresses the above protein; (d) and                                                                                                                                                                                   human; tumour-associated antigenic target; TAT; cytostatic; gene therapy; cancer; cell proliferative disorder; gene; ss.
                                                                                                                                            Human tumour-associated antigenic target (TAT) cDNA sequence #1445.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1445; 5504pp; English.
                       ADQ84631 standard; cDNA; 1100 BP
                                                                                                                                                                                                                                                                                                                                                                  15-OCT-2003; 2003WO-US029126
                                                                                                                                                                                                                                                                                                                                                                                                          18-OCT-2002; 2002US-0418988P
                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC.
WU T D.
ZHOU Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2004-534300/51
                                                                                                                                                                                                                                                                                  WO2004060270-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhou Y;
                                                                                                    07-OCT-2004
                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                          22-JUL-2004.
                                                            ADQ84631;
                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH ) (WUTD/) (ZHOU/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wu TD,
```

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1069 GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG 1128
                                                                                                        168
                                                                                                                                                                                                                                                                    348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228
                                                                                                                                                                                     147
                                                                                                                                                                                                                288
                                                                                                                                                                                                                                                                                                                                                                               468
                                                                                                                                                                                                                                           207
                                                                                                                                                                                                                                                                                                267
                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                          387
                                                                                                                                                                                                                                                                                                                                                                                                                                    528
                                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGTAAGTACATACACACATGCGCCTGCACACATGCTTCTGTCTCCTCCTCCTCCCAC 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        987
                                                                                                                                 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGACAGACCCAGTGCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAAGGACTC
                                                                                                                                                                                     88 CITTACGITACAACCGAATGIGGACACICGGCAGAAGCAGCIGGCGCCGCCIGGIGCICGCT
                                                                                                                                                                                                                               GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                         CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAGCAGGGACCTGTCTCTTTACTTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAGGGTGAGGCTGAAGCACCAGGGAAAATATGTGCTTCTTCTCGCCCTACCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAAACCTGACACTTTATATATGTGTTCACA
                                                                                                        109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                28 creegcractacearesceareagririceagreeccerescastarescrirecaccerr
                                                                                                                                                                                                             GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                           TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                               CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAGGGTGAGGCTGAAGCACCAGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTT
                                                                                                                                                             CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                     GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   508 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         529 . AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  448 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                             ;
0
                                                    Length 1100;
                         Sequence 1100 BP; 247 A; 308 C; 292 G; 253 T; 0 U; 0 Other;
                                                                             Indels
human TAT cDNA sequence from the present invention.
                                                  Query Match 41.2%; Score 1073; DB 13;
Best Local Similarity 100.0%; Pred. No. 1.3e-210;
Matches 1073; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                      268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6001
                                                                                                                                                            169
                                                                                                                                                                                                                229
                                                                                                                                                                                                                                           148
                                                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                208
                                                                                                                                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                                                                                                                                          328
                                                                                                                                                                                                                                                                                                                                                                                                                                    469
                                                                                                                                                                                                                                                                                                                                                                                                                                                               388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           949
                                                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     889
S X S
                                                                                                        ð
                                                                                                                                                            ò
                                                                                                                                                                               a
                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

620

680

740

800

98

38

Ö

ò

ð

셤

셤

ò

```
398
                                                                                                                                                                                                                                                                                 278
                                                                                                                                                                                                                                                                                                                                                      218
                                                                                                                                                                                                                                                                                                                                                                                                                                                            860
                                                                                                                                                                                                                                                                                                                                                                                                           217 TGTGACTCCACCAGACTCAAAAGGACTCCAGAAGGCTGAAGGCTGGGGACCTGGGGATGGGTT 158
                                                                                                                                                                                                              397 ccacrcracrecededricrecaeecerracaecaedaecaeaaececaaearcarcarcae 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                861 AIGIGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTG 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated nucleic acid that is differentially expressed in cancer tissues useful for determining the presence of colon cancer in a cell tissue type, and in antisense therapy.
                                                                                                                               277 CTCCCACCTTTCCAGGCTTTCAAAAGGAGACACAGACCCAGTGTCCCCCAAAAAAGGATC
                                                                                                                                                                                                                                                                                 337 TCAGCGATGGCCGAGGCGTCAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACTTCTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97 ATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTG
 576 TCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAAT
                                    GGGGGAAACTCATCTATCAGTGGGTTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCC
                                                          TGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAG
                                                                                                                                                                             CCACTCTACTGCGGGCTCTGCAGGCCCTACAGGCAGAGGCCGAGATCATCACTG
                                                                                                                                                                                                                                                CTCCCACCTTTCCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                       TGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molino GA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, colon cancer; cancer; tissue profiling; forensic; mapping;
genetic analysis; diagnostic; antisense therapy; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human colon cancer related nucleotide sequence SEQ ID NO:636,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dwivedi P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     921 TAAACCIGACACTITATATGIGTICACACAIGTAAGT 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37 TAAACCTGGCACTTTATATGTGTTCACACATGTAAGT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Catino TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carroll E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABQ56941 standard; cDNA; 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-OCT-2001; 2001WO-US030732.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-OCT-2000; 2000US-0237271P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Burgess C, Astle JH, Ca
Thiaglingam A, Lewis ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-426115/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (FARB ) BAYER CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200229086-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-APR-2002.
                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                              801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABQ56941;
                                      441
                                                                                                         501
                                                                                                                                                                             261
                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                       681
                                                                                                                                                                                                                                                                                                                                                                                           741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABQ56941
                                                                   요
                                                                                                                                   g
                                                                                                                                                                     ò
                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expressed in cancer tissues. ABB78993 to ABB79004 represent proteins expressed in cancer tissues. ABB78993 to ABB79004 represent proteins encoded by the ABG60776 to ABG60787 mucleic acid sequences. (1) can be used in antiense therapy. An antibody immunoreactive with a polypeptide encoded by (1) is useful for detecting cancer in a patient sample, and cor detecting the presence of a polymuclecide encoded by a nucleic acid which hybridises to (1) in a cell. A probe/primer derived from (1) can be used for determining the presence of a nucleic acid which hybridises to (1) in a cell. A probe/primer derived from (1) can be used for determining the phenotype of calls in a sample of calls from a patient. (1) is useful for determining the presence of colon cancer in a cell or tissue type, for determining the presence of state of other type of cancer, in antisense therapy, to generate colon cancer in a cell or tissue type, for determining the presence or state of other type of cancer, in antisense therapy, to generate corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (1) can be used to raise antibodies, and to screen for peptide analogues and antagonists
                    1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634 GAAAGCTICCIGIGGAGICGAICCAGAITGIATTAGAGAA--ITAAGAAAGAAAGAACN 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated nucleic acid that is differentially expressed in cancer tissues useful for determining the presence of colon cancer in a cell or tissue type, and in antisense therapy.
988 GGAAGCCTTGCTGCAGGCATTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Molino GA;
                                                      1181
                                                                       1048 GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC 1100
                                                                                                                                                                                                                                                                                                                       mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3,
                                                    GCAGTGAGAGGTGTGGCCCCACAATTTATGATATTAAAATCTCAACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 6; Length 634;
                                                                                                                                                                                                                                                                                     Human colon cancer related nucleotide sequence SEQ ID NO:727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5; Indels
                                                                                                                                                                                                                                                                                                                    Human; colon cancer; cancer; tissue profiling; forensic; m
genetic analysis; diagnostic; antisense therapy; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dwivedi P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 634 BP; 147 A; 168 C; 160 G; 158 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.2%; Score 603.6; DB 6; 98.7%; Pred. No. 3.5e-114; iive 0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Catino TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Burgess C, Astle JH, Carroll E,
Thiaglingam A, Lewis ME;
                                                                                                                                                                             ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Fig 1; 796pp; English
                                                                                                                                                                             ABQ57032 standard; cDNA; 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-OCT-2001; 2001WO-US030732.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-OCT-2000; 2000US-0237271P.
                                                                                                                                                                                                                                                02-AUG-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 98.7
Matches 629; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-426115/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (FARB ) BAYER CORP.
                                                                                                                                                                                                                                                                                                                                                                                                           WO200229086-A2
                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                              11-APR-2002
                                                      1129
                                                                                                                                                                                                               ABQ57032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                            ABQ57032/c
                                                                                                                                                                           g
```

```
expressed in cancer tisques. ABB7893 to ABB7904 represent proteins encoded by the ABG60776 to ABG60787 nucleic acid sequences. (I) can be used in antisense therapy. An antibody immunoreactive with a polypeptide encoded by (I) is useful for detecting cancer in a patient sample, and for detecting the presence or absence of a polymucleotide encoded by a nucleic acid which hybridises to (I) in a cell. A probe/primer derived from (I) can be used for determining the presence of a nucleic acid which hybridises to (I), and for determining the phenotype of cells in a sample of cells from a patient. (I) is useful for determining the presence of colon cancer in a cell or tissue type, for determining the presence or state of other type of cancer, in antisense therapy, to generate macroarrays on a solid surface, to identify a chromosome on which the corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (I) can be used to raise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 critacerracaacceaarereeacacreeecaeaacaecreeccecreereereer 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136 GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256 TGTTTTAGAGGAACTGAGGAAGAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTICCTGAICATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCAICTATCAGTGGGTTIC 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGAGTGGCCAGAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 credecracracearedecareaerriceaeredeceredecagrarecricecaecerr 75
                                        ABQ56306 to ABQ60787 represent isolated nucleic acids (I) differentially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      436 AGAGGATGAGGGGCTGGATGAAACCACTCTACTGCGGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                     antibodies, and to screen for peptide analogues and antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 19.8%; Score 515.8; DB 6; Length 559; Il Similarity 99.6%; Pred. No. 3.8e-96; Conservative 0; Mismatches 2; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 559 BP; 135 A; 140 C; 167 G; 117 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGA 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  496 ACAGCAGGAGCACAAGGCCCGAGATCATCACTGTCAGCGA 534
Claim 1; Fig 1; 796pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            529
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
```

ò 요 ઠે g ઠે a Š 셤 ઠે 요 ઠે g ò 셤 ò 셤 ò 셤 Novel canine microarray-related DNA sequence SeqID1662.

21-OCT-2004 (first entry)

ADQ50360;

ADQ50360 standard; DNA; 675

RESULT 11

canine microarray; drug screening; toxicity assay;

This invention is related to a novel isolated canine nucleic acid
sequences and the construction of canine microarrays containing a
significant portion of the canine genome. The isolated canine mucleic
acid sequences of the invention may be useful for drug screening and
to acid sequences of the invention may be useful for assessing the
impact, including toxicity, of a compound, pharmaceutical agent or
environmental pollutant on a cell or living organism. The methods are
useful for detecting genes that are up- or down-regulated in canines in a
disease state. The sequences are useful as diagnostic agents or markers
to detect a cellular response in a sample individually or as part of a
gene expression profile. It is also useful as a target for agents that
condulate gene expression or activity. The database is useful for
producing electronic Northerns that allow the user to determine the cell
type or tissue in which a given gene is expressed and to allow
determination of the abundance or expression level of a given gene in a
particular tissue or cell. The methods are useful for determining the
similarity of a toxic response to one or more individual compounds. The
methods are useful for predicting at least one toxic response or the
likelihood that a compound or test agent will induce various specific
pathologies such as those of the liver liver necrosis, fatty liver
disease, protein adduct formation or hepatitis), those of the kidney,
compound or testes, or other pathologies associated with at least one
cof the toxins. The methods are also useful for predicting or elucidating
the potential cellular pathways influenced, induced or modulated by the
compound or teste agent will an expression profile. 492 120 612 The present sequence is 552 9 a or 433 AGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGT 1 AGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCTANNAGTGGCCAGAACAACTCCGT 553 GGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGCAGAGCCCAAGAT 493 CTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCT environmental pollutant; cellular response; gene expression profile; toxic response; liver necrosis; fatty liver disease; protein adduct formation; hepatitis; dog; ds. Gapa New isolated nucleic acid molecule, useful for drug screening and toxicity assays or for assessing the impact, including toxicity, of compound, pharmaceutical agent or environmental pollutant on a cell of a canine DNA sequence which was claimed for use during the 25; DB 13; Length 675; Sequence 675 BP; 159 A; 189 C; 170 G; 155 T; 0 U; 2 Other; Indels production of a canine microarray of the invention. compared to the profile induced by a known toxin. 18.8%; Score 489.2; DB 13; 86.2%; Pred. No. 1.2e-90; iive 0; Mismatches 70; Claim 1; SEQ ID NO 1662; 41pp; English. Wei T; 05-MAY-2003; 2003WO-US013853 33-MAY-2002; 2002US-0377240P Matches 595; Conservative (GENE-) GENE LOGIC INC. (PFIZ) PFIZER PROD INC. Diggans JC, Porter M, WPI; 2004-561890/54 Local Similarity Canis familiaris. living organism. WO2004063324-A2 Query Match 셤 ਠੇ g Š ò

유 ઠે 셤 ð 셤 ò g ઠે

ઠે

```
expressed in cancer tissues. ABB78993 to ABB79004 represent proteins encoded by the ABG60776 to ABB78993 to ABB79004 represent proteins canced by the ABG60776 to ABB78993 to ABB79004 represent proteins cancoded by the ABG60776 to ABG60787 nucleic acid sequences. (1) can be cared in antisense therapy. An antibody immunoreactive with a polypeptide encoded by (1) is useful for detecting cancer in a patient sample, and nucleic acid which hybridises to (1) in a cell. A probe/primer derived from (1) can be used for determining the presence of a nucleic acid which hybridises to (1) is useful for determining the presence of cells from a patient. (1) is useful for determining the presence of colon cancer in a cell or tissue type, for determining the presence or state of other type of cancer, in antisense therapy, to generate macroarrays on a solid surface, to identify a chromosome on which the corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (1) can be used to raise antibodies, and to screen for peptide analogues and antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACA 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       506 TATCACTGNGTTTCCAGGAAGTGCCCAAGAACAACTCNGTCTTTACCCTGTATGAACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      446 ACTAATGGGGAAGAACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTTTACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cadacticadadedericcadriccreadederidedecreededaridedirircreacaceee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      455 IATCAGTGGGTTTCCAGGA--GTGGCCAGAACAACTCCGTCTTTACCCTGTATGAAC-TG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                512 ACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGCTCTGCAGGCCCTACAGCAGAGGCCGAGATCATCACCTGTCAGCGATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGCGTCAAGTTCTTCTAGCAGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        326 CGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; colon cancer; cancer; tissue profiling; forensic; mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 6; Length 507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human colon cancer related nucleotide sequence SEQ ID NO:610.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 507 BP; 123 A; 125 C; 133 G; 120 T; 0 U; 6 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tch 17.8%; Score 464.4; DB 6; Length al Similarity 97.0%; Pred. No. 1.3e-85; 491; Conservative 0; Mismatches 12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTATATGTGTTCACACATGTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTATATGTGTTCACACATGTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВÞ.
1; Fig 1; 796pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABQ56915 standard; cDNA; 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABQ56915;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABQ56915
ID ABQ
XX
AC ABC
XX
XX
DY
XX
XX
XX
XX
XX
XX
XX
HUIT
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1092
                                                                 672
                                                                                                                                  237
                                                                                                                                                                                                    732
                                                                                                                                                                                                                                                                  296
                                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
GGATGAAGCAACCCTACTTCGGGCTCTGCAGGCCCTACAGCAGGAGCACAAGGCTGAGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated nucleic acid that is differentially expressed in cancer tissues useful for determining the presence of colon cancer in a cell tissue type, and in antisense therapy.
                                                                                                       CATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGAGACCTGTCTC---TTA
                                                                                                                                                                                                    AGGGTCTGTAAACCTGACACTTTATATGTGTTTCACACATGTAAGTACACACATGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conscaecacianciar circi con consciona a la secono con consciona de la consciona della consciona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      516 GCGCCTGCACAAGCTTTTGTCTCTCCCTTTCCCACCTTTAGCTGCTATTGCCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTA
                                                                                                                                                                                                                                                                                                                                   ACTOGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                 297 ACTGGATCTGTGACTCCACCAGACTCAAAAGGGCTCCAGT------CCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      793 GATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343 ATGGGTTTCCCACTACCCTGTATGTCTGTCTTGGGGAAAGGTGAGGTGAGGTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403 cacadada de descriptor de consecrica en consecue de consecuencia de consec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molino GA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human colon cancer related nucleotide sequence SEQ ID NO:533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dwivedi P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, colon cancer, cancer, tissue profiling, forensic, r
genetic analysis, diagnostic, antisense therapy, gene; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Catino TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCAGGCAATATGAAGATAGGAGGCCCACG 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  щ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carroll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-OCT-2001; 2001WO-US030732.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-OCT-2000; 2000US-0237271P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABQ56838 standard; cDNA; 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Thiaglingam A, Lewis ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Astle JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-426115/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (FARB ) BAYER CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200229086-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1093
                                                                                                                                                                                                                                                                  238
                                                                                                                                                                                                                                                                                                                               733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    576
                                                                                                                                                                                                    673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   636
                                                             613
                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABQ56838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Burgess
```

147

871

87

27

5

임

g

ð

유

8 g ઠે

ò

genetic analysis; diagnostic; antisense therapy; gene; ss.

```
expressed in cancer tissues. ABB78993 to ABB79004 represent proteins expressed in cancer tissues. ABB78993 to ABB79004 represent proteins cancoded by the ABB60776 to ABB60787 nucleic acid sequences. (I) can be cancoded by the ABB60776 to ABB60787 nucleic acid sequences. (I) can be used in antisense therapy, An antibody immunoreactive with a polypeptide encoded by (I) is useful for detecting cancer in a patient sample, and nucleic acid which hybridises to (I) in a cell. A probe/primer derived from (I) can be used for determining the presence of a nucleic acid which hybridises to (I), and for determining the phenotype of cells in a sample of cells from a patient. (I) is useful for determining the presence of cells from a patient. (I) is useful for determining the presence of state of other type of cancer, in antisense therapy, to generate macroarrays on a solid surface, to identify a chromosome on which the corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (I) can be used to raise antibodies, and to screen for peptide analogues and antagonists
                                                                                                                                                                                                                                                                                                                                                                                                   New isolated nucleic acid that is differentially expressed in cancer tissues useful for determining the presence of colon cancer in a cell or tissue type, and in antisense therapy.
                                                                                                                                                                                                                                                                                                Carroll E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Fig 1; 796pp; English.
                                                                                                                                                                   02-OCT-2001; 2001WO-US030732.
                                                                                                                                                                                                            02-OCT-2000; 2000US-0237271P
                                                                                                                                                                                                                                                                                              Burgess C, Astle JH, Ca.
Thiaglingam A, Lewis ME;
                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-426115/45.
                                                                                                                                                                                                                                                  (FARB ) BAYER CORP.
                                                                                   WO200229086-A2
                                            Homo sapiens.
                                                                                                                           11-APR-2002
```

Catino TJ, Dwivedi P, Molino GA;

6; Length 609; Sequence 609 BP; 156 A; 149 C; 160 G; 135 T; 0 U; 9 Other;

g

ઠે 셤 ઠે

8

```
171
                                                                                                                                                        231
                                                                                                                                                                            CCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAG 184
                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                            411
                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                   CCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAG 291
                                                                                                                                                                                                                                                                                                                   CCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGT 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    472 GAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGA 531
                                                                                                                 64
                                                                                                 GGGGACTACGATGGTGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTT
                                                                                                                                                                                                                                                                                                                                       CCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGT
                                                                                                                                                        TACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                              ATTAGAGGAACTGAGGAAGAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGATCATGTGGCGGA-GCCAGAAGAATGGGGGAAACTCATCTATCAGTGG--TTTCAG
                                                                           112 GGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTT
                                      Gaps
                                      9
                                    10; Indels
Score 395; DB 6;
Pred. No. 2.6e-71;
                                      0; Mismatches
Query Match
Best Local Similarity 96.5%;
                                      Matches 447; Conservative
                                                                                                               ß
                                                                                                                                                        172
                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                            352
                                                                                                                                                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                             65
                                                                                                                                                                                                                                                                        125
                                                                                                                                                                                                                                                                                                                 292
                                                                                                                                                                                                                                                                                                                                                     185
```

g

ઠે 셤 8 쉽

셤

ò

ò

Human; ss; gene; NOVX; adrenoleukodystrophy; haemophilia; stoke; VHL;

Congenital adrenal hyperplasia; haemophilia; hypercoagulation;

Midiopathic thrombocytopaenic purpura; attoimmune disease; allergy;
immunodeficiencies; transplantation; von Hippel-Lindau syndrome;

Mizheimer's disease; transplantation; von Hippel-Lindau syndrome;

Multiple sclerosis; cerebral palsy; Lesch-Nyhan syndrome; pain;
multiple sclerosis; attai-telangiectasis; lesch-Nyhan syndrome; pain;
multiple sclerosis; interstitial nephritis; glomerulomephritis;
behavioural disorder; addiction; neuroprotection; diabetes; ARDS;
cenal artery stenosis; interstitial nephritis; glomerulomephritis;
polycystic kidney disease; systemic lupus erythematosus; IgA;
renal tubular acidosis; immunoglobulin A nephropathy; hypercalcaemia;
cirrhosis; transplantation; asthma; emphysema; scleroderma; GVHD;
dult respiratory distress syndrome; graft versus host disease;
lymphedema; fertility; pancreatitis; obesity; haemophilia; ulcer;
manemia; cancer; trauma; regeneration; infection. 362 GAGTGGC--AGAACACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGA 419 420 GGATGAGGAGTTCCACGGGCTGGATGAA-CCACTCTACTGCGG 461 532 GGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGG Human cDNA encoding protein NOV5. ABX17514 standard; cDNA; 545 (first entry) Homo gapiens. 05-FEB-2003 ABX17514; RESULT 1 ABX17514 셤 8 g

2001US-0285335P. 2001US-0285890P. 2001US-0286068P. 2001US-0287213P. 2001US-0291725P. 2001US-0294771P. 2001US-0281906P 2001US-0282934P. 2001US-0283512P. 2001US-0288257P. 2001US-0291134P. 2001US-0296965P. 2001US-0299128P. 03-APR-2002; 2002WO-US010522 2001US-0286292P WO200281629-A2. 06-APR-2001; 10-APR-2001; 12-APR-2001; 27-APR-2001; 24-APR-2001; 25-APR-2001; 02-MAY-2001; 12-MAY-2001; 17-MAY-2001; 31-MAY-2001; 08-JUN-2001; 18-JUN-2001; 17-OCT-2002.

2001US-0305063P 2001US-0332780P 2002US-00345221 04-JAN-2002; 02-APR-2002; 14-NOV-2001;

CURA-) CURAGEN CORP.

<u>``</u> Spytek KA, Li L, Edinger SR, Ellerman K, Stone DJ, Malyankar UM; Shimkets RA, Guo X, Anderson DW, Patturajan M, Berghs C, Gerlach Taupier RJ, Pena CEA, Padigaru M, Liu Y, Burgess CE, Miller CE; Gusev VY, Kekuda R, Gorma L, Zerthiun BD, Baumgartner JC; Tchernev VT, Vernet CAM, Smithson G, Heyes MP, Shenoy SG, Liu X; Gusev VY, Keki Tchernev VT, Gangolli EA;

%XCCCCCCCCCCCCCCCCCCCCCCCCCCX%%X444X833X

2003-046863/04 P-PSDB; ABU11036 New polypeptides, designated NOVX polypeptides, useful for treating hemophilia, idiopathic thrombocytopenic purpura, autoimmune disease, allergies, transplantation, Alzheimer's disease and stroke.

Claim 19; Page 96-97; 320pp; English.

Tragment or NOVA. Also included are determining the presence of a mount of the polypeptide), determining the presence of or predisposition to disease associated with alterated levels of NOVX in a first mammalian subject, identifying a potential therapeutic agent for use in the treatment of pathology related to aberrant expression of physiological confidentifying a potential therapeutic agent for use in the treatment of pathology related to aberrant expression of physiological confidentifying a potential for administration of pathology related to aberrant expression of physiological corrections of NoVX, screening for a modulator of activity or of latency or predisposition to a pathology associated with NOVX, the nucleic acid encoding NOVX, vectors and host cells. NOVX is useful for identifying an encoding NOVX nucleic acids are useful for treating or preventing NOVX.

NOVX and NOVX nucleic acids are useful for treating or preventing NOVX.

Conforming a NOVX related disease human disease e.g.

associated disorders in humans, and in the manufacture of a medicament of for treating a NOVX related disease human disease e.g.

cadrenoleukodystrophy, congenital adrenal hyperplasia, haemophilia, hypercoagulation, idiopathic thrombocytopaenic purpura, autoimmune CC disease, allergies, immunodeficiencies, transplantation, vulciples, behavioural disorders, staxia-telangiectasia, clasches, multiple sclerosis, ataxia-telangiectasia, leukodystrophies, behavioural disorders, addiction, anxiety, pain, cheucoprotection, diabetes, renal artery stenosis, interstitial nephritis, polycystic kidney disease, systemic luyes cervitement acidosis, transplantation, anxiety, pain, hypercalcaemia, cirrhosis, transplantation, asthma, emphysema, chease (GVDD), lymphedema, fertility, pancreatitis, obesity, haemophilla, ulcers, anaemia, cancent, rename account, and viral, chaemophilla, ulcers, anaemia, cancent, rename sequence encodes a NOVX procession of parasitic infections. The present sequence encodes a NOVX The invention relates to an isolated NOVX polypeptide selected from NOVI-NOV27 polypeptides, a mature form of NOVX, a variant of NOVX or a fragment of NOVX. Also included are determining the presence or amount of

Sequence 545 BP; 135 A; 117 C; 159 G; 134 T; 0 U; 0 Other;

228 124 288 184 348 241 408 468 361 469 CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528 64 302 TITCCTAATCATGTGGCGGAGGCCAGAAGAATGGGGAAAAAACTCATCTATCAGTGGGTCTC CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGTGATGGAAGCTCAGGA 125 GGTTCTGTCCATCTGCTGCTGCACAGACAGCTCAAGCATGATGGTTATGGATGCTCAGGA GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC CITIACCITACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT crrracarracagergaegregeceaerregecagaageagergeceeergergrrrgrr GATCCTGCTCTTCAGCAACATCAAGCT---GTGGAAGCTTCCTGTGGGATCAATCCAGGT TGTATTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 10; 13.6%; Score 353.6; DB 8; Length 545; 84.6%; Pred. No. 8.2e-63; tive 0; Mismatches 69; Indels 10. Best Local Similaricy ov...
Matches 435; Conservative Similarity 109 80 169 65 229 185 242 289 349 409 Query Match

g

a ò g

ò

g

ò

g ò 요

ò

637 CGTCAAGTTCTTCTAGCAGGAACCTGTCTCCCTTTACTTTCTTACCTCCCACCTTTCCAGG 696

å

ABQ56306 to ABQ60787 represent isolated nucleic acide (I) differentially expressed in cancer tissues. ABB78993 to ABB7004 represent proteins encoded by the ABQ60775 to ABQ60787 nucleic acid sequences. (I) can be used in antisense therapy. An antibody immunoreactive with a polypeptide cucoded by (I) is useful for detecting cancer in a patient sample, and nucleic acid which hybridises to (I) in a coll. A probe/primer derived from (I) can be used for determining the presence of a nucleic acid which hybridises to (I) in a coll. A probe/primer derived from (I) can be used for determining the phenotype of cells in a sample of cells from a patient. (I) is useful for determining the presence of colon cancer in a cell or tissue type, for determining the presence of state of other type of cancer, in antisense therapy, to generate state of other type of cancer, in in thissue profiling, forensics, genetic corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (I) can be used to raise ô 588 362 CAGGAGTGGCCAGAACAACTCCGTACTTAGCCTGTATGAGCTGACCAATGGGAAGACAT 421 477 New isolated nucleic acid that is differentially expressed in cancer tissues useful for determining the presence of colon cancer in a cell or tissue type, and in antisense therapy. 529 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT 422 AGAGAATGAGGTGTTCCACGGACTAAAGGAGGC----CTTCTGTGGGGCTCTGCAGGCCCT Catino TJ, Dwivedi P, Molino GA; Gaps antibodies, and to screen for peptide analogues and antagonists DB 6; Length 349; Human colon cancer related nucleotide sequence SEQ ID NO:665. Human, colon cancer, cancer; tissue profiling; forensic; r genetic analysis, diagnostic; antisense therapy; gene; ss Indels Sequence 349 BP; 75 A; 102 C; 82 G; 86 T; 0 U; 4 Other; 5; 589 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTC 622 478 TCAGTAGGAACATAAGGCTGAGATCATCACCATC 511 Query Match 12.2%; Score 317.4; DB Best Local Similarity 98.5%; Pred. No. 2e-55; Matches 318; Conservative 0; Mismatches Carroll E, ABQ56970 standard; cDNA; 349 BP Claim 1; Fig 1; 796pp; English. 02-OCT-2001; 2001WO-US030732. 02-OCT-2000; 2000US-0237271P. (first entry) Thiaglingam A, Lewis ME; Burgess C, Astle JH, WPI; 2002-426115/45. (FARB) BAYER CORP WO200229086-A2 Homo sapiens. 02-AUG-2002 11-APR-2002 ABQ56970; RESULT 15 ABQ56970 셤 à ò

1 CGTCAAGTTCTTCTAGCAGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGG 60

ద

```
        Oy
        697 GCTTTCAAAAGGACACAGACCCCCAAAGACTGGATCTCTGACTCCACCAGAC 756

        Db
        61 GCTTTCAAAAGGACACGACCCCCCCAAAGACTGGATCTCTGACTCCACCCCATAC 120

        Cy
        757 TCAAAAGGACTCCAGTCCTGAAGGCTGGGATGGGTTTCTCACACCCCATATG 816

        Db
        121 TCAAAAGGACTCCAGTCCTGAAGGCTGGGATGGGTTTCTCACACCCCATATG 180

        Cy
        817 TCTGTCCTTGAAAGGCTGAAGGCTGGAGACGGGAAGATATGTGCTTCTCTCGC 876

        Cy
        817 TCTGTCCTTGGATAGGCTGAAGGCTCAGGGGAGAAAATATGTGCTTCTTCTCGC 240

        Cy
        877 CCTACCTCCTTTGCATAGGCTCAAAGCACCAGGGAGAAAATATTCTCGC 240

        Cy
        877 CCTACCTCCTTTCCCATCCTTGAACGCCAGGGAGAAAATATTCTCGC 240

        Cy
        877 CCTACCTCCTTTCCCATCCTTGAACGCCAGGGAGAAAATATTTTA 330

        Cy
        937 TATGTGTTCACACATCTTAGACTGTCCTTGAACCTGTAAACCTGAACTTTA 300

        Cy
        937 TATGTGTTCACACATGTAAAGTAC 323

        301 TATGTGTTCACACATGTAAAGTAC 323
```

Search completed: June 28, 2005, 19:33:46 Job time: 918.543 secs

This Page Blank (uspto)

```
Sequence 4, Appli
Sequence 300, App
Sequence 307, App
Sequence 1902, Ap
Sequence 15507, A
Sequence 15507, A
Sequence 15506, A
Sequence 15506, A
Sequence 1380, Ap
Sequence 1380, Ap
Sequence 1380, Ap
Sequence 1380, Ap
                                                                                                                                             (without alignments)
14414.621 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 611, App
Sequence 15510, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 433, App
Sequence 57, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1380,
                                                                                                                                                                                                                                               1 CAAGCTCGAAATTAACCCTC......CTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
Sequence
Sequence
                                                                                                                       June 28, 2005, 18:22:52 ; Search time 295.707 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                              2405568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Issued Patents NA:*

(cgn2_6/ptodata/1/ina/5A_COMB.seq:*

(cgn2_6/ptodata/1/ina/5B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-621-976-308

US-09-621-976-307

US-09-621-976-1951

US-09-621-976-15511

US-09-621-976-15511

US-09-621-976-15508

US-09-621-976-15508

US-09-621-976-15508

US-09-611-376-15308

US-09-702-705-1380

US-09-714-128-1380

US-09-671-325-1380

US-09-671-325-1380

US-09-671-325-1380

US-09-671-325-1380

US-09-671-376-611

US-09-671-376-611

US-09-671-976-15510

US-09-671-976-15510

US-09-671-976-15510

US-09-671-976-15510

US-09-671-976-15510

US-09-671-976-15510
                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .08-848-760B-33
                                                                                                                                                                                                                                                                                                                                                     1202784 segs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                - nucleic search, using sw model
                                                                                                                                                                                                                                                                                        IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match Length DB
                                                                                                                                                                                                        US-08-731-499-4
2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12494
12494
                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            444
389.6
386.4
                                                                                OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Result
No.
```

Api	Appl	Appl	, App.	, App.	, App]	, Appl	, Appl	, Appl	10881, 7	Appli	Appli	, App]	, Appl	, App]	, App]	, Appl	5, Api
ij	ý	ý	22	15	15	1	디	12	_	ų,	'n	13	19	16	16	7	135
Seguence	Seguence	Seguence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence
US-09-509-800-1	US-08-646-538-6	US-09-503-222-6	US-08-675-566-22	US-09-097-319A-15	US-09-643-971-15	US-09-575-602-11	US-09-032-086-11	US-09-358-856C-12	US-09-270-767-10881	US-08-675-566-1	US-08-675-566-3	US-09-097-319A-19	US-09-643-971-19	US-09-097-319A-16	US-09-643-971-16	US-09-608-730B-21	US-08-998-416-135
4	m	ო	٣	m	4	m	4	4	4	m	m	m	4	ო	4	ო	m
3385	3699	3699	4965	9299	9299	9659	9629	3988	902	6994	7001	9335	9335	9408	9408	4883	713
5.3	5.2	5.2	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.0	4.9
137.4	136	136	136	135	135	134	134	133.8	133	133	133	133	133	133	133	130	127.6
28	53	30	31	32	33	34	35	36	37	38	33	40	41	42	43	44	45
	υ	υ	υ					υ		O	υ						

ALIGNMENTS

```
RESULT 1

OG 66 660 - 395-4

Sequence 4, Application US/08680395

Patent No. 5892010

GENERAL INFORMATION:

APPLICANT: Gray, Joe W.

APPLICANT: Gray, Joe W.

APPLICANT: Road-So-in

APPLICANT: We see from the 20q13 Amplicon and Their

TITLE OF INVENTION: Genes from the 20q13 Amplicon and Their

TITLE OF INVENTION: Uses

NUMBERSONES TOWNERS: Townerd and Townsend and Crew Lib

STREET: Two Embarcadero Center, Eighth Floor

CITTY: So Francisco

STRATE: California

CONTENT: Usa

CONTENT: Usa

CONTENT: ISB PC Compartible

CONTENT APPLICANTON NUMBER: US/08/680,395

FILING DATE: ISB PC-005/MS-005

CONTENT: APPLICANTON NUMBER: 15-1012

APPLICANTON NUMBER: 15-1012

TELEPHONE: ASI INFORMATION:

REFERENCE, CONTENTISTICS:

LENGTH: 2605 Dase pairs

TYPE: NUMBER: 11 AND 1-2605

INCORATION: TYPE: CDNA

FRATURE: TRANSPARTION: CHARLES TOWNER TRANSPARTION: CHARLES TRANSPARTION: TRA
```

120

360

360 420 420 480

300

480 540 540 600 9 99 99 720 720 780

```
961 TACACACATGCGCCTGCACACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTAGCTGC 1020
CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                            CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC
                                                                                                       121 GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTACGTTACA
                                                                                                                                                                                                             CTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTT
                                                                                                                                                                                                                                                                                            CAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGGAGTCGATCCAGATTGTATTAGAAGGA
                                                                                                                                                                                                                                                                                                                                                     ACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGTTAGATAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                creseaccresearescrircreacaccecararerererecerresarassersasse
                                                                                       GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACA
                                                                                                                                                                                                                               CTGCCGCCTGCAAACAGTCCAGCATGATGGAAGGTTCAGGAAGCTCTTT
                                                                                                                                                                                                                                                                          CAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGTTCCTT
                                                                                                                                                                    ACTGAGGAAAGGGAACCTCGAGTGGTGGTAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCCCCCAAAGACTGGATCTGTGACTCCACAGACTCAAAAGGACTCCAGTCCTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGGACCTGGGGATTGCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901 IGECTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTTAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021 TGTTGCCTCCCTTCTCAGGCTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081 TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCCACGGGCCTGGCAGTGAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                  GTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGGCCCTACAGCAGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTTTCCCATCCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGT
                                                         61
                                                                                       121
                                                                                                                                                  181
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                            61
                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                         6 B 6
                                                                                                            g
                                                                                                                                               ò
                                                                                                                                                                       g
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                             2400
                                                                                                                                                                                                                                                                                        2460
                                                                                                                                                                                                                                                                                                                     2460
                                                                                                                                                                                                                                                                                                                                                   2520
                                                                                                                                                                                                                                                                                                                                                                                                                2580
                                                                                                                                                                                                                                                                                                                                                                                                                                             2580
                                                                                                                                                                                               2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
           2161 CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCCGTAAAGCTGGGATCCTTCCAATTTT
                                                                                                  GAATGAATTGTTTTGCTAGTAAGTCTGGGGAACCCAGGTGAGAAGAGCCTAGAAAGCA
                                                                                                                                                                                             GAATGAATTGTTTTGCTAGTAAAGTCTGGGGAACCCCAGGTGAGAAGAAGCA
                                                                                                                                                                                                                                          GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                                   2461 GAATTGGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTTACAACGTCGTGACTGGGA
                                       CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCCGTAAAGCTGGGATCCTTCCAATTTT
                                                                                                                                                                                                                                                                                     GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                  GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGCTGGAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INVENTATION:

GENERAL INVENTATION:

APPLICANT: GTAY, JOSE W

APPLICANT: Colline, Collin

APPLICANT: Godfrey, Tony

APPLICANT: Rowel, David

APPLICANT: Rowel, David

APPLICANT: Rowel, David

TITLE OF INVENTION: GENES FROM THE 20013 AMPLICON AND THEIR USES

FILE REFERENCE: 2500.124U33

CURRENT FILING DATE: 1997-07-15

EARLIER PILLING DATE: 1997-01-17

EARLIER FILING DATE: 1997-01-17

EARLIER FILING DATE: 1996-10-16

EARLIER FILING DATE: 1996-10-16

EARLIER FILING DATE: 1996-07-15

NUMBER OF SEQ ID NOS: 59

SOFTWARE: PATENTIN VENES: 1996-07-15

SEQ ID NO 4

LENDER FILING DATE: 1996-07-15

SEQ ID NO 4

LENDER PATENTING DATE: 1996-07-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Description of Artificial Sequence:cc43
US-08-892-695-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 2605; Best Local Similarity 100.0%; Pred. No. 0; Matches 2605; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2581 AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4, Application US/08892695A; Patent No. 6808878; GENERAL INFORMATION: APPLICANT: Gray, Joe W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
US-08-892-695-4
           2101
                                         2161
                                                                                                    2221
                                                                                                                               2221
                                                                                                                                                                                             2281
                                                                                                                                                                                                                            2341
                                                                                                                                                                                                                                                        2341
                                                                                                                                                                                                                                                                                     2401
                                                                                                                                                                                                                                                                                                                    2401
                                                                                                                                                                                                                                                                                                                                                  2461
                                                                                                                                                                                                                                                                                                                                                                                                             2521
                                                                                                                                                                                                                                                                                                                                                                                                                                             2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2581
                                                                                                                                                              2281
         <del>ያ</del>
                                                              a
                                                                                          ઠે
                                                                                                                          g
                                                                                                                                                      õ
                                                                                                                                                                                     셤
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

1080

1080

1020

840 840 900 9,00 960 960

780

2520

2580 2580

2400

```
2341 GGTCGAATICCAAGGCTAGATAGACTTAGTGTTACTCAAGAAAGGGTAGCCTGAAAATAAA 2400
   GAATGATTTGCTAGTAAAGTCTGGGGGAACCCAGGTGAGAAGAGCCTAGAAAGGA
                                                                                                                                                                                              GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                    GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                                                                       GAATTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGCCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                            GAATTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                                                   2521 GCCCTATAGTGAGTCGTATTACAATTCACTGGCGCGTCGTTTTACAACGTCGTGGGA
                                                                                                                          GGTCGAATCCAAGGCTAGATAGACTTAGTGTTACTCAAGAAAGGGTAGCCTGAAAATAAA
                                                                                                                                                                                                                                                                                                                                             GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
                                                  GAATGAATTGTTTTGCTAGTAAAGTCTGGGGGAACCCAGGTGAGAAGAGCCTAGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41.3%; Score 1076.2; DB 4; Length 1243; 99.7%; Pred. No. 4e-247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Taug, Y. Tom
APPLICANT: Taug, Y. Tom
APPLICANT: Taug, Y. Tom
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Ren, Feiyan
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Wendy, Aldong J.
APPLICANT: Wang, Vonghoung
APPLICANT: Wang, Vonghoung
APPLICANT: Wang, Vonghoung
APPLICANT: Wang, Dinnrui
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6559662el Nucleic Acids and
TITLE OF INVENTION: No. 6559662el
APPLICANT: DLMANTON: NO. 6559662el
APPLICANT: SPORTION NUMBER: 09/552,317
PRIOR FILING DATE: 2000-01-21
PRIOR FILING DATE: 2000-01-21
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 1105
SEQ ID NO 930
IEBNOTH: 1243
MUNICENTER OF SEQ ID NOS: 1105
                                                                                                                                                                                                                                                                                                                                                                                                                  AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 930, Application US/09620312D
; Patent No. 6569662
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; LOCATION: (172)..(702)
US-09-620-312D-930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-620-312D-930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2581
                                                                                        2281
                                                                                                                                                                                                 2401
                                                                                                                                                                                                                                                                         2461
                                                                                                                                                                                                                                                                                                           2461
                                                                                                                                                                                                                                                                                                                                              2521
                                                                                                                                                                                                                                   2401
                                                                                                                                                                                                                                                                                                                                                                                                                    2581
                                                    2281
                                                                                                                            2341
                                                                                    원
                                                                                                                                                    셤
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                  ð
                                                                                                                        ò
                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2220
                  CTGAAAAAAGTTGACTGAAACTCCAAACCAACATGCCATATTGTTGATGTTGCTCATGAA 1500
                                                                                                                                                                                                                                                                                                                                                                                      1501 AATTGTTAAAAACCTGTTCTAGATAAAGAACAGTCTCAAGTTTTTGTACAGCCTACACAT 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAATAAAGCACTCATATTTTATAAATTATATGGACCAAACTATTTTGGAAATCTTAT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1861 TTTCTTTTAGCTCTTGAACAAGCCAAACTGCTTCCTGCCTCGGGACCAGATATTTGGGA 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAAGTCAGTTTCCTCACTAAAACTATAAAACTCCGTAAAAGCTGGGATCCTTCCAATTTT 2220
                                                                                                                                             TCTGGTTTATAACTCTCTCGATCTCAGAGTTGACTGATTAAAACACCTACTCATGCAACA 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTATTGGAGACACAATATGCTGGACTAAAGCAATAATTATTTTTATTCTCAATGTCTGTGC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAACCTCAATGACTTAGAATGCTTTGCTATATTTTGCCTCTATGCCTCAACCACACTGGC 1860
                                                                             GAGAATAAAGCACTCATATTTTTTATAAATTATATGGACCAAACTATTTTGGAAATCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1801 TAACCTCAATGACTTAGAATGCTTTGCTATATTTTGCCTCTATGCCTCAACCACACGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGTTAAAAACCTGTTCTAGATAAAGAACAGTCTCAAGTTTTTGTACAGCCTACACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTACAAGGGTCCCCTATGATGATTCTTCTGTAGGACGAAATAATGTAATTTTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCTTTTAGCTCTTGAACAGCCAAACTGCTTCCTGCCTCAGGACCAGATATTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTICICITIAAGAATICTATITCCTIAATICTITIATCTGGGTAACTTAGTITTTATCCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCAACATACTCACCAGCACATGTAGACTAGATTAGAACCTCCTGTTTTTCTTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACTITICICIATCATCCTTCCCTCCATTATAATATTTTTATTATGTGTGTAATGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACTTTTCTCTATCATGCTTCCCTCCATTATAATATTTTTATTATTATATATGTGTGAATGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCCGTAAAGCTGGGATCCTTCCAATTTT
                                                                     CTGAGACTAGTTCTCTCTCTCGAGAACTAGTCTCGAGTTTT
                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2041
                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2101
                                                                                                         1201
                                                                                                                                                                              1261
                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2161
1141
                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                          셤
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                   ò
                                                                                            g
                                                                                                                              ∂
                                                                                                                                                                       Б
                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

S

ద

8

8 6 8 6 8

g

ò

g

ઠે

유

δ

g

ઠે

ò

a

8

ઠે

ò

요

8 8

8 8

음 상 음

ò

8 6 8

ò

g

δ

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                criccrearcareregegegegegaaaaaaaregegeaaacrearerareagegerrre 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  375 CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGAGGAAGACAC 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCC 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135 GGTCCTGTCTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                      APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
TITLE OP INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET. 054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 309
SEQ ID NO 309
LENGTH: 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18.3%; Score 476; DB 4; 199.6%; Pred. No. 7.3e-104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Mismatches
                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEX: CDS
LOCATION: 28..495
NAME/KEX: SIG_Deptide
LOCATION: 28..156
OTHER INFORMATION: Von Heijne matrix
OTHER INFORMATION: score 4
COTHER INFORMATION: seq AAWGSLVLSFCRL/HK
US-09-621-976-308
                                                                                                                              ; Sequence 308, Application US/09621976
; Patent No. 6639063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 99.6
Matches 476; Conservative
                                                                                                                                                              GENERAL INFORMATION:
                    A 1193
                                                1243 A 1243
                                                                                               RESULT 4
US-09-621-976-308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
US-09-621-976-307
                  1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tragerigerierrecerrecerrereagerigerigericerreceragegarigegeaa 1122
   ö
                                                                                                                                                              292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  942
                                                               222
                                                                                               232
                                                                                                                              282
                                                                                                                                                                                            342
                                                                                                                                                                                                                            352
                                                                                                                                                                                                                                                            402
                                                                                                                                                                                                                                                                                          412
                                                                                                                                                                                                                                                                                                                         462
                                                                                                                                                                                                                                                                                                                                                          472
                                                                                                                                                                                                                                                                                                                                                                                          522
                                                                                                                                                                                                                                                                                                                                                                                                                          532
                                                                                                                                                                                                                                                                                                                                                                                                                                                          582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   952
                                                  GCGTCGACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCACTGTTTCTTT
                                                                                                               ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCTC
                                                                                                                                                                                                                          CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                           AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGACCTGTCTCTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCTGGCTGCAGGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                                                                                               ACGITACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                            CTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                               CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                          ccecrcricaacaacercaageracaeceaaaecrrecreresaarceaearceaearrera
                                                                                                                                                                                                                                                                                                                                                                                          CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAGTACATACACACGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
 Gaps
   .
                               GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCA
 Indels
   ю
..
0; Mismatches
Matches 1078; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1183
                                                               163
                                                                                            173
                                                                                                                            223
                                                                                                                                                            233
                                                                                                                                                                                          283
                                                                                                                                                                                                                          293
                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                         403
                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                       523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1133
                                                                                                                                                                                                                                                                                          353
                                                                                                                                                                                                                                                                                                                                                          413
                                                                                                                                                                                                                                                                                                                                                                                                                         473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1003
```

```
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SEQ ID NO 1902
LENGTH: 494
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: 38..310
NAME/KEY: sig_peptide
LOCATION: 38..166
OTHER INFORMATION: SCORE 4
OTHER INFORMATION: SCORE 4
                                                                                                                                                                                                                                                                                                                   Query Match 17.0
Best Local Similarity 99.4
Matches 467; Conservative
                                                                                                                                                                                                                                                                            US-09-621-976-1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348
                                                                                                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTGATCATGTGGCGGGGGGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTC 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGAGTGGCCAGAACACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      145 GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85 CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCCCCTTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCCTGATCATGTGGGCGGGGCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
17.4%; Score 453; DB 4; Length 487;
Best Local Similarity 100.0%; Pred. No. 2.3e-98;
Matches 453; Conservative 0; Mismatches 0; Indels
                                                APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Johert, S.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 307
LENGTH: 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 6639063
GENERAL INPORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    529 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGC 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGGATGAGGAGTTCCACGGGCTGGATGAAGC 477
                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
FRATURE:
FRATURE:
COCATION: 38..487
NAME/KEY: CDS
LOCATION: 38..166
COTHER INFORMATION: Von Heijne matrix
COTHER INFORMATION: score 4
COTHER INFORMATION: seq AAWCSLVLSFCRL/HK
US-09-621-976-307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
8.09-621-976-1902
; Sequence 1902, Application US/09621976
; Patent No. 6639063
     Sequence 307, Application US/09621976
Patent No. 6639063
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
265 Trgratragaggaacrgaggaagaaaggaaccrcgagrggrrggaraagaggaagrcca 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              205 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAAGCTTCCTGTGGAGTCGATCCAGA
                                                                                                                                                                                                                                                              CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                85 CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                          GGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                           289 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCG-AAAGCTTCCTGTGGAGTCGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      385 riccaddagredecadaacaacrecererraceergrardaacreacraarddaada
                                                                                                                               109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACTT
                                                                                                                                                                                           25 cresecracracearesceareacririceaeresceresceaerarescrirecaerer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGG--AAACTCATCTATCAGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       325 GCTTCCTGATCATGTGGCGGGGGCCAGAAGAATGGGGGAAAAACTCATCTATCAGTGGGT
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       445 CACAGAGGATGAGGAGTTCCACGGGGCTGGATGAAGCCACTCTACTGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGG
                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 15507
Sequence 15507
Sequence 15507
Patent No. 6639063
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENERIO 163PP2
CURRENT APPLICATION WUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 15507
LENGTH: 417
TYPE: DNA
ORGANISM: HOMO sapiens
Similarity 99.4%; Pred. No. 3.2e-96; Conservative 0; Mismatches 0
```

84

465 384

359

```
TTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 ACGTTACAACCGAATGTGGACACTSNGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTCCTTCTGCCGCSTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA 352
                                                                                                                               181 CTCTTCAACGTCAAGGTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTA
                                                                                                                                                                                                                                                        416 ATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGT
                                                       296 CTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATA
                                                                                                                                                                                     GAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTG
                                                                                                                                                                                                          241 GAGGAACTGAGGAAGAAAGCGAACCTCGAGTGGTTGGATAAGANCAAGTCCAGCTTCCTG
                                                                                                                                                                                                                                                                                           301 ATCATGTGGCGGAGG-CAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ccecrcrrcaacaacercaaceracaceaaa-srrccreresaarcaacearccaerrera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۳.
ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Indels
                                                                                                                                                                                                                                                                                                                                                       360 GGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAA 400
                                                                                                                                                                                                                                                                                                                                  GGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAA 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT PILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 15506
LENGTH: 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 97.0%; Pred. No. 1.2e-76; Matches 392; Conservative 5; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 15506, Application US/09621976
; Patent No. 6639063
; GRNEAL INCOMMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
NAME/KEY: misc feature
LOCATION: 86,316,359,366
COTHER INFORMATION: n=a, g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-621-976-15506
61
                                                                                                                                                                                   356
                                                                                                                                                                                                                                                                                                                                476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       353
                                8 8 8
                                                                                                                                   Op
                                                                                                                                                                             δ
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                        232
                                                                                                                                                                                                                                                                                                                                                                                                         352
                                                                                                                                                                                                                                                                                           61 ACGITACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC 120
                                                                                                                                                                                                                                                                                                                                292
                                                                                                                                                                                                                                                                                                                                                     CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC 180
                                                                                                                                                                                                                                                                                                                                                                                                                         CGCTCTTCAACAACGTCAAGCTACAGCGAAA-STTCCTGTGGAGTCGATCCAGATTGTA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCGAAGTCCAGCTTC 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240 TTAGAGGAACTGAGGAAGAAANGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGATCATGTGGCGGAGG-CATAAGAATNGGGGAAACTCATCTATCAGTGGGTTTCCAGG 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTG 235
                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGA 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ANTGGCCAGAACAACTCCCTCTTTACSCTGTATGAACTGACTAATGGGGAAGACACAGA 417
                                                                                                                                                                                                                                                      1 ACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACG
                                                                                                                                                                                                                  1 deractaceareceareaerriceaereceereceaeracearricearecerriri
                                                                                                                                                                                                                                                                                                                              CTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                       CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116 ACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACG
                                                                                                                                              Gaps
                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cch 14.8%; Score 386.4; DB 4; Length 400; al Similarity 99.3%; Pred. No. 1.7e-82; 398; Conservative 0; Mismatches 2; Indels 1
                                                                                                        Length 417;
                                                                                                                                            Indels
                                                                                                                                                                               GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 15511, Application US/09621976

Patent No. 6639063

GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Gordano, J.Y.
ITLLE OF INVENTION: ESTE and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT PILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 15511
LENGTH: 400
                                                                                                        Score 389.6; DB 4;
Pred. No. 3e-83;
2; Mismatches 4;
                                                    ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ų
                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: n=a, g, c or
                                                                                                    Query Match 15.0%;
Best Local Similarity 98.1%;
Matches 411; Conservative ;
             ; NAME/KEY: misc_feature
; LOCATION: 261,327,360
; CHER INFORMATION: n=a, g, c
US-09-621-976-15507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature LOCATION: 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-09-621-976-15511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATIONS OF 15511
                                                                                                                                                                                 113
                                                                                                                                                                                                                                                      173
                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                     293
                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
Matches 39
                                                                                                                                                                                 ò
                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

232

9

82

348

408

셤 à 셤

```
265 TGTATTARAGGAACTGAGGAASAAAGGGAACCTCGARTGGYTGGATAAGAGAGCCAG 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAA-STTCCTGTGGAGTCGATCAAGTT
                                                                                                                                                                                                                                                                                                                                                                               26 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   169 CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86 CTTTACGTTACAACCGAATGTGGACACTCGGCAKWAGSAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCCTGTCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        289 GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            209 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCAACAACAGTCCAGCATG
                                                                                                                                                                                                                                                                                                                                                       109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Lodes, Michael A.
APPLICANT: Fanger, Gary
APPLICANT: Vedvick, Tom
APPLICANT: Carrer, Darrick
APPLICANT: Retter, Marc
APPLICANT: Retter, Marc
APPLICANT: Fan, Liqun
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.478C14
CURRENT APPLICATION NUMBER: US/09/702,705
CURRENT FILING DATE: 2000-10-30
NUMBER OF SEQ ID NOS: 1833
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                          Length 360;
                                                                                                                                                                                                                                                          11.9%; Score 309; DB 4; Length 36 96.4%; Pred. No. 5.2e-64; tive 10; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGG 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        325 CTTCCTGATCATGTGGCGGARG-CAGAAGAATGGGGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
10.3%; Score 269; DB 4; I
Best Local Similarity 100.0%; Pred. No. 1.6e-54;
Matches 269; Conservative 0; Mismatches 0;
                   CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
NUMBER OF PATENT. pm
SEQ ID NO 15509
LENGTH: 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-702-705-1380/c

'Sequence 1380, Application US/09702705

; Sequence 1380, Application US/09702705

; Patent No. 6504010

; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                        Matches 325; Conservative
                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                              US-09-621-976-15509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-702-705-1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             409
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     467
  CTGAICATGIGGCGGANGCCA-AAGAAIGGGGGAAACICAICIAICAGIGGGIIITCCA-G 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITIACGII-ACAACGAAIGIGGACACICGGCAGAAGCAGCIGGCCGCCIGGIGCICGC 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75 CITTAMGKTAACAACSGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGC 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135 TGGTCCTGTCCTCTGCCGCCTGCACAACAGTCCAGCATGACGGTVHNNGAAGCTCAGG 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGA 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        348 TTGTATTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCA 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAA-STTCCTGTGGAGTCGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 credecracraceardeceargaerrrcgaeregeceregeararcgerreceacerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 228 TGGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 328.2; DB 4; Length 383; Pred. No. 1.4e-68;
                                              473 AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAA 516
                                                                      Indels
                                                                                                                                                                                                                                       GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Unmas Milne Edwards, J.B.
APPLICANT: JODGAT, S.
APPLICANT: Glocatno, J.Y.
TITLE REPERENCE: GENSET. 054 PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 15508
LENGTH: 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-621-976-15509

Sequence 15509, Application US/09621976

Patent No. 6639063

GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Globert, S.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6; Mismatches
                                                                                                                                                                                                         Sequence 15508, Application US/09621976 Patent No. 6639063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc feature
LOCATION: 183...184
CTHER INFORMATION: n=a, g, c or
US-09-621-976-15508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12.6%;
96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 96.8
Matches 359; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGAGTGGC 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373 ccaddadcredc 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                      US-09-621-976-15508
                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            468
300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          195
```

g

ò

g

ઠે

g

ò 유 ઠે

ò

셤

셤

ઠે

à

ö

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      È
269 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAACAGTCCAGCATG 210
                                                       209 ACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT 150
                                                                                                      329 CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGG 388
                                                                                                                                                                                TIGGATAAGAGCAAGTCCAGCTICCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               269 CTGGCCGCCTGGTGCTCGCTGGTCCTGTCTTCTGCCGCCTGCACAAACAGTCCAGCATG 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    209 ACGGTGATGGAAGCTCAGGAGGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGG 388
                                                                                                                             149 CCTGTGGAGTCGATCCAGATTGTATTAGAGGAAGAAGAAGAAGAACTCGAGTGG 90
                                                                                                                                                                                                       89 TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            149 CCTGTGGAGTCGATCCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGG 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269 ACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           269 ACGGTGATGGAAGCTCAGGAGAGCCCCGCTCTTCAACAACGTCAAGGTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Fanger, Gary
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
APPLICANT: Retter, Marc
APPLICANT: Retter, Marc
APPLICANT: Retter, Marc
APPLICANT: Retter, Marc
APPLICANT: Fan, Liqun
APPLICANT: Fan, Liqun
APPLICANT: Pan, Liqun
TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
FILE REPERBNCE: 210121.4786115
CURRENT APPLICATION NUMBER: US/09/736,457
CURRENT FILING DATE: 2006-12-13
NUMBER OF SEQ ID NOS: 1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10.3%; Score 269; DB 4; Length 269; 100.0%; Pred. No. 1.6e-54; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                       449 CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                           Sequence 1380, Application US/09736457
Patent No. 6509448
GENERAL INFORMATION:
APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Lodes, Michael A.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Wang, Tongtong
Bangur, Chaitanya S.
Lodes, Michael A.
Fanger, Gary
Vedvick, Tom
Carter, Darrick
Retter, Marc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 10.3
Best Local Similarity 100.
Matches 269; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Homo sapien
US-09-736-457-1380
                                                                                                                                                                                                                                                                                                                                                                 US-09-736-457-1380/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 1380
                                                                                                                                                                              389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                389
                                                                                                                                                                                                                                                                                       29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59
                                  ò
                                                                셤
                                                                                           ð
                                                                                                                                     요
                                                                                                                                                                              8
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

RESULT 14

```
209 ACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269 croscocorosrecrosrosrocrororororococorocadadadoros 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          329 CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGG 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGGGCCAGAAGAATGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89 TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAAACAGTCCAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               269 ACGGTGATGGAAGCTCAGGAGACCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Bangur, Chaitanya S.
APPLICANT: Lodes, Michael A.
APPLICANT: Lodes, Michael A.
APPLICANT: Lodes, Michael A.
APPLICANT: Panger, Garry
APPLICANT: Vedick, Tom
APPLICANT: Retter, Marc
APPLICANT: Mannion, Jane
TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.478612
CURRENT APPLICATION NUMBER: US/09/671,325
CURRENT FILIAG DATE: 2000-09-26
NUMBER OF SEQ ID NOS: 1825
SOFTWARE: PRESEQ for Windows Version 3.0
LENGTH: 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                           APPLICANT: Loddes, Michael A.
APPLICANT: Fanger, Gary
APPLICANT: Panger, Gary
APPLICANT: Vedvick, Tom
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
APPLICANT: Retter, Marc
APPLICANT: Mannion, Jane
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND
TITLE OF INVENTION: COMPOSITIONS OF LUNG CANCER
FILE REFERENCE: 210121.478C9
CURRENT APPLICANTON NUMBER: US/05/614,124B
CURRENT PLING DATE: 2001-07-11
NUMBER OF SEQ ID NOS: 1668
SOFTWARE: FastSEQ for Windows Version 3.0
: ENGTH. 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10.3%; Score 269; DB 4; Length 26
100.0%; Pred. No. 1.6e-54;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          449 CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCATCTATCAGTGGGTTTCCAGGAGTGG 1
US-09-614-124B-1380/c
; Sequence 1380, Application US/09614124B
; Patent No. 6630574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence 1380, Application US/09671325
                                                                                            JENERAL INFORMATIONS
APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya
APPLICANT: Lodes, Michael A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya
APPLICANT: Lodes, Michael A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 10.3
Best Local Similarity 100.
Matches 269; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Homo sapien
US-09-614-124B-1380
                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-671-325-1380/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            389
```

ô 268

```
268
                                                                                                                     269 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCAACAACAGTCCAGCATG 210
                                                                                                                                                                                                   TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAA 448
                                                                               209 CTGGCCGCCTGCTCCTGCTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATG
                                                           Gaps
                                                            .
,
                                       Query Match 10.3%; Score 269; DB 4; Length 269; Best Local Similarity 100.0%; Pred. No. 1.6e-54; Matches 269; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                          CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-671-325-1380
                                                                                                                                                                                                     389
                                                                                                                                                                                                                                           449
                                                                                                                                                                                                                       83
                                                                                              a
                                                                                                                    6 2 2 2 2 2 2
                                                                               ò
```

Search completed: June 29, 2005, 05:27:54 Job time: 299.707 secs

Sequence 610, App Sequence 613, App Sequence 2264, App Sequence 1380, App Sequence 1380, App Sequence 1380, App Sequence 1380, App Sequence 6790, App Sequence 128, App Sequence 1365, App Sequence 1797, App Sequence 7056, A

Run

```
1 US-09-969-034-610
1 US-09-989-134-613
1 US-09-998-598-2264
1 US-09-998-598-2264
1 US-09-998-598-2264
1 US-09-998-598-2264
1 US-09-998-598-2400
1 US-09-98-598-2400
1 US-09-98-598-2400
1 US-09-98-598-2400
1 US-09-98-692-6790
2 US-09-196-692-8647
2 US-10-113-848-8647
2 US-10-154-88-88-8647
2 US-10-154-88-88-865
2 US-10-154-88-88-865
2 US-10-164-88-88-865
2 US-10-164-88-88-7056
2 US-10-164-38-7056
2 US-10-164-38-88-611
2 US-10-35-393-31999
2 US-10-35-393-31999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/731,499
FILING DATE: 16-OCT-1996
      ZIP: 94111-3834
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         California
: USA
   COUNTRY:
                                                                                                                                                                                                                                      267.4
267.4
267.4
267.4
267.4
267.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      219.2
218.2
169.4
    00000000000
                                                                                                   June 29, 2005, 01:06:08; Search time 1019 Seconds (without alignments) 15978.923 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                             US-08-731-499-4
2605
1 CAAGCTCGAAATTAACCCTC......CTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                      FUDLISTICE APPLICATIONS NAT.

11. (1902 6) Picodata 1/ pubpna 1/857

12. (1902 6) Picodata 1/ pubpna 1/857

13. (1902 6) Picodata 1/ pubpna 1/856 Picodata 1/ pubpna 1/850 Picodata 1/ pubpna 1/851 Picodata 1/ pubpna 1/850 
                  5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-731-499-4

US-10-37-270-930

US-10-117-72-930

US-09-890-688-25

US-09-890-034-727

US-09-969-034-636

US-09-969-034-533
                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                   6067389 segs, 3125258755 residues
                  version 5
                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                         nucleic search, using sw model
                                                                                                                                                                                                                     IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                  GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2605
1243
1243
1087
634
559
507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                  Published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0
41.3
41.3
41.2
23.2
19.8
                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2605
1076.2
1076.2
1073
603.6
515.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                         OM nucleic
                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                      ü
O
```

FILING DATE: 16-OCT CLASSIFICATION: 435

Sequence Sequence

Result

Sequence 7056, Ap Sequence 7056, Ap Sequence 611, App Sequence 25199, A Sequence 25177, A Sequence 19060, A

us-08-731-499-4.rnpb

```
1080
                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1680
                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTATTGGAGACACAATATGCTGGACTAAAGCAATAATTATTTTATTCTCAATGTCTGTGC 1800
                                              780
                                                                                                 840
                                                                                                                        840
                                                                                                                                                                           900
                                                                                                                                                                                                                               960
                    720
                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGAC
                                                                                                                                                                                                                   TACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                            ACTITICICTACITAATACTACTITCCAGICTCAGAAGCCCAGAGGGAAAAAAAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAAAAAAGTTGACTGAAACTCCAAACATGCCATATTGTTGATGTTGCTCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGGTTTATAACTCTCTCTGGATCTCAGAGTTGACTGATTAAAACACCTACTCATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAATAAAGCACTCATATTTTATAAATTATATGGACCAAACTATTTGGAAATTATAT
                                                        TGTCCTTGAGCCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACA
                                                                                                                                                                                                                                                                     TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGAGAGGTTAGGAGGGGCCAACATAGAAGATAGGAGGGCCAACAAAAATATGAAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTITITITITITITITITIGGCTTTAAGGATTTATTTATTTGTTTCCTCTTTACAGTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAAAAAAGTTGACTGAAACTCCAAACATGCCATATTGTTGATGTTGCTCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTACAAGGGTCCCCTATGATGATTCTTCTGTAGGACGAAATAATGTAATTTTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGGTTTATAACTCTCGATCTCAGAGTTGACTGATTAAAACACCTACTCCATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGAATAAAGCACTCATATTTTTATAAATTATATGGACCAAACTATTTTGGAAATCTTAT
                                                                                                TGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGAC
                                                                                                                                                                                                                                                                                                           TGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGGATGGGGGAAGCCCTGGC
                                                                                                                                                                                                                                                                                                                           TGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGC
                                                                                                                                                                                                                                                                                                                                                             TGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                               AATTGTTAAAAACCTGTTCTAGATAAAGAACAGTCTCAAGTTTTTGTACAGCCTACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTACAAGGGTCCCCTATGATGATTCTTCTGTAGGACGAAATAATGTAATTTTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1741
                                                                                                                        781
                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1681
                                               721
                                                                      721
                                                                                                                                                   841
                                                                                                                                                                             841
                                                                                                                                                                                                     901
                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                     561
                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    십
                                            ò
                                                                                                                    g
                                                                                                                                                  ò
                                                                                                                                                                          셤
                                                                                                                                                                                                 Š
                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTACGTTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACACAGAGGATGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCCTCTGCAGCAGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCACGAGCTGGGCTACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATGCCGATGAGTTTCGAGTGCCCGTGCCAGTATCGCTTCCCACCCTTCTTTACGTTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCGAATETGGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCA
                                                                                                                                                                                                                                                                                                                                                                          CAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Acceaateresacactcescasascascrescesceresresresresresrerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCCGCCTGCAAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGACCCGCTCTT
                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                        2605;
                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                     袞
                                                                                                                                                                                                                                                                                                                        .;
8
                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                      ğ
                                                                                                                                                                                                                                                      LOCATION: 1..2605
OTHER INFORMATION: /note= "cDNA clone cc43
OTHER INFORMATION: transcript"
                                                                                                                                                                                                                                                                                                                        DB
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/680,395
FILING DATE: 15-7UL-1996
ATTORNEY/AGENT INFORMATION:
NAME: HUNTER, TOM
REGISTRATION NUMBER: 38 498
REFERENCE/DOCKET NUMBER: 23070-068910
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEPHONE: (415) 576-0200
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 2605 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                     100.0%; Score 2605; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.
Matches 2605, Conservative
                                                                                                                                                                                                               MOLECULE TYPE: CDNA FEATURE: NAME/KEY:
                                                                                                                                                                                                    linear
                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                     ;
US-08-731-499-4
                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                        Query Match
```

g

ò

셤

ò

요

õ

g ઠે qq ઠે g ò

ò

8 & E

g

ò 셤 g

8

g

ò

쉽

ò

8 8

요 ò g ઠે 셤 ò 셤 8 g

```
172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             173 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAGAGGAACTGAGGAAGAAGGGAACCTCGAGTGGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGATCATGTGGGGGGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGAGGGGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGGACCTGTCTCCTTACTTCCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        163 GCGTCGACGATGCCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crercerrececerecacaaacaerecaecareaceereareaaeereaaeereaeaee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGAGGAGTTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGACCTGTCTCCTTACTTCCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             713 AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     113 GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTAGAGGAACTGAGGAAGAAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 15; Length 1243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó;
                                                              APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Zhiwei
APPLICANT: Wang, Zhiwei
APPLICANT: Tillinghast, John
APPLICANT: Tillinghast, John
APPLICANT: Tillinghast, John
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20030104529A1el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784C1P2B
CURRENT APPLICATION NUMBER: US/10/037,270
CURRENT FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 1104
SOFTWARE: pt_FL_genes Version 1.0
SEQ ID NO 930
LENGTH: 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
41.3%; Score 1076.2; DB 1
Best Local Similarity 99.7%; Pred. No. 4.2e-237;
Matches 1078; Conservative 0; Mismatches 3;
 Yonghong
Jian-Rui
                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (172)..(702)
US-10-037-270-930
                                    Zhou, Ping
Ma, Yunqing
Wang, Dunrui
Wang, Zhiwei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                        2100
                                                                                                                                                                                                                                                                                                                                                                           2100
                                                                                                                                                                                                                                                                                                                                                                                                                2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2580
                                                      1801 TAACCTCAATGACTTAGAATGCTTTGCTATATTTTGCCTCTATGCCTCAACCACCACAGGC 1860
                                                                                                                                CTTCAGATCCTGCCGTAAAAACTCTTCTTATAGAAGCCTGTCATGACACTGTCTCTCTTC 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCAAGTCAGTTTCCTCACTAAACTATAAACTCGGAAAGCTGGGGATCCTTCCAATTTT 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2340
CTATTGGAGACACAATATGCTGGACTAAAGCAATAATTATTTTATTCTCAATGTCTGTGC 1800
                                                                                                              1920
                                                                                                                                                                                    CTTCTCTTAAGAATTCTATTTCCTTAATTCTTTATCTGGGTAACTTAGTTTTATCCAACA 1980
                                                                                                                                                                                                                           1980
                                                                                                              TITCITITIAGCICTIGAACAAGCCAAACIGCTICCIGCCICAGGACCAGAIAITITIGGGA
                                                                                                                                                                                                          CTTCTCTAAGAATTCTATTTCCTTAATTCTTTATCTGGGTAACTTAGTTTTATCCAACA
                                                                                                                                                                                                                                                                                    CTTCAGATCCTGCCGTAAAACTCTTCTTATAGAAGCCTGTCATGACACTGTCTCTTC
                                                                                                                                                                                                                                                                                                                                                          GAATGAATTGTTTTGCTAGTAAAGTCTGGGGGAACCCCAGGTGAGAAGAGCCTAGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTCGAATCCAAGGCTAGATAGACTTAGTGTTACTCAAGAAAGGGTAGCCTGAAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTCGAATCCAAGGCTAGATAGACTTAGTGTTACTCAAGAAAGGGTAGCCTGAAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGAGTGCTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
                                                                                                                                                                                                                                                                                                                                    TCCAACATACTCACCAGCACACATGTAGACTAGAATTAGAACCTCCTGTTTTTCTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2101 TACTITICTCTATCATGCTTCCCTCCATTATAATATTTTTTATTATGTGTGTAATGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCCAAGTCAGTTTCCTCACTAAACTACTCCGTAAAGCTGGGATCCTTCCAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAATGAATTGTTTTGCTAGTAAAGTCTGGGGGAACCCAGGTGAGAAGAGGCCTAGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTTCAAATTATAGTCAAGAATAGTCAAGACATGGGCAAGACAAGACAAGAGGTGCTCGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAATTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGCCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2461 GAATTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGCCCGGTACCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2521 GCCCTATAGTGAGTCGTATTACAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAACCCTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 930, Application US/10037270; Sequence 930, Application No. US20030104529A1; GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Zhang, Vinod
APPLICANT: Zhang, Jie
APPLICANT: Ren, Feiyan
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Wehrman, Tom
APPLICANT: Xhao, Qing A.
APPLICANT: Xue, Aidong J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-037-270-930
 1741
                                    1801
                                                                                                           1861
                                                                                                                                                                                    1921
                                                                                                                                                                                                                       1921
                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                 1961
                                                                                                                                                                                                                                                                                                                                      2041
                                                                                                                                                                                                                                                                                                                                                                                                                2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2161
```

g

ò

g

ઠ

a

8

g

8

8

g

ሯ g ò g

8 8

ö

342

402 412 462 472 522

```
GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG 1002
                                                                                                                                   CCGCTCTTCAACAACGTCAAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                             1003 TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCACCCCT
CTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGGC
                                                                                                 AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                                                                                                                                                             GATGAGGAGTTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                            CAGGAGCACAAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                                                                                                                                                                                               TTAGAGGAACTGAGGAAAGGGAACCTCGAGTGGTTGGATAAGAGGAAGTCCAGCTTC
                                                                                                                                                                                                                                                   CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGCTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCT
                                                                                                                                                                                     TTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                                                                                                                  CTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGG
                                                                                                                                                                                                                                                                                                                                GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTAACAG
                                                                                                                                                                                                                                                                                                                                                                                CAGGAGCACAAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A 1193
                                                                                                                                                                                                                                                                                                                                                        583 (
                                                                                                                                                                                                                                                                                                                                                                                                       643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1193
                                                              223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1123
                                                                                                                                                                                                                                                                                                         523
                                                                                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1073
               163
                                                                                                            283
                                                                                                                                                             343
                                                                                                                                                                                   353
                                                                                                                                                                                                            403
                                                                                                                                                                                                                                  413
                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                   473
                                                                                                                                                                                                                                                                                                                                                                                  593
                                                                                                                                                                                                                                                                                                                                                                                                                                653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      823
                                       173
                                                                                      233
                                                                                                                                     293
                                                                                                                                                                                                                                                                                                                                 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6 8 6
                                                                                                      g
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                      ò
                                                           g
                                                                                   ò
                                                                                                                                     ઠે
                                                                                                                                                        셤
                                                                                                                                                                                δ
                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                     1012
                                                                                                                                                                                                                                                                                   1132
                                                                                                                                                                                                                                                                                                                                943 TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG 1002
                                                                                                                                                                                                                                    ö
                                       832
                                                                                                            942
                                                                                                                                     952
                                                              882
                                                                                      892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113 GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT 172
                                                                                                  GGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCA
                                                                                                                                                                                                 1003 TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCCCT
                                                                                                                                                                                                                                                  1073 GCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
                                                                                                                                                                                                                                                                                                1123 GCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAG
 TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                     TAAGTACATACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCT
                                                                                      GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
41.3%; Score 1076.2; DB 17; Length 1243;
Best Local Similarity 99.7%; Pred. No. 4.2e-237;
Matches 1078; Conservative 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence 930, Application US/1011722

sequence 930, Application US/1011722

sequence 930, Application US/1011722

sequence 930, Application No. US20030219744A1

septicant: Tang, Y. Tom

APPLICANT: Asundi, Vinod

APPLICANT: Asundi, Vinod

APPLICANT: Asundi, Vinod

APPLICANT: Asundi, Vinod

APPLICANT: Consequence 100, 100, 117, 122

TITLE OF INVENTION: Polypeptides

FILE REFERENCE: 784C1P2BCIP

CURRENT APPLICATION NUMBER: US/10/117, 722

CURRENT FILING DATE: 2000-07-19

PRIOR APPLICATION NUMBER: 09/552, 317

PRIOR APPLICATION NUMBER: 09/552, 317

PRIOR APPLICATION NUMBER: 09/488, 725

PRIOR APPLICATION NUMBER: 09/488, 725

PRIOR FILING DATE: 2000-01-21

NUMBER OF SEQ ID NOS: 1104

SOFTWARE: PLFL-genes Version 1.0

SEQ ID NO 930

LENGTH: 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (172)..(702)
US-10-117-722-930
                                                                                                                                                                                                                                                                                                                                                                                  A 1193
                                                                                                                                                                                                                                                                                                                                                                                                          1243 A 1243
                                                                                                            883
                                                                                                                                                                                     953
                                                                                                                                                                                                                                    1013
                                                                                                                                     893
               763
                                      773
                                                                                      833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8,
                                    à
                                                         음 상 음
                                                                                                                              8 6
                                                                                                                                                                             õ
                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                   යු දු
                                                                                                                                                                                                                                                                                                   a
G
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                         ⋧
                                                                                                                                                                                                                                                                                                                                                                                                  g
```

532

642

652 702 712 762

592

772

832

882 892

822

942 952

윱

```
1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGTAAGTACATACACACGCGCGTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1034
                                            588
                                                                                                                                                                                      648
                                                                                                                                                                                                                                                                                                                                   708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      795 CCCATCCTAGACTCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          974
                                                                                                               494
                                                                                                                                                                                                                                                            554
                                                                                                                                                                                                                                                                                                                                                                                                  614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           975 GGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                      555 CTAGCAGGGACCTGTCTCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            615 AGACAGACCCAGTCTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               855 CATGTAAGTACATACACACACATGCGCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAAGCCCTGGCTGCAGGCATTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTG
                                            529 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                         495 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                   649 CTAGCAGGGACCTGTCTCCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   929 ATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGTGCTTCTTCTCGCCCTACCTCCTTT
                                                                                         435 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                      589 ACAGCAGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             709 AGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1129 GCAGTGAGGGGTGTGGCCCCACACTTTATGATATTAAAATCTCAACTCCC 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1035 GCAGTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        us-uy-yby-034-727/c
; Sequence 727, Application US/09969034
; Publication No. US20040110668A1
; GENERAL INFORMATION:
APPLICANT: BurgesB, Christopher C.
APPLICANT: Carroll, Eddie III
APPLICANT: Carroll, Eddie III
APPLICANT: Carroll, Peocnima
APPLICANT: Thiagalingam, Arunthathi
APPLICANT: Thiagalingam, Arunthathi
APPLICANT: Lewis, Marcia E.
TITLE OF INVENTION: Nucleic Acid Sequences Differentially
TITLE OF INVENTION: Nucleic Acid Sequences
FILE REPERENCE: 1657/1032
CURRENT APPLICATION NUMBER: US/09/969,034
CURRENT APPLICATION NUMBER: 60/237,271
PRIOR FILING DATE: 2000-02-10
NUMBER: OF SEQ ID NOS: 4494
; SOFTWARE: FastSEQ for Windows Version 4.0
; FUNDE: Number: Nu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      769
                                        Š
                                                                                                셤
                                                                                                                                                                       8
                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75 CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTGGCT 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229 GGTCCTGTCCTTCTGCCGCCTGCAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349 TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             315 CTTCCTGATCATGTGGCGGGGGCCCAGAAGAATGGGGGGAAACTCATCATCAGTGGGTTTC 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              469 CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          255 TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 41.2%; Score 1073; DB 10; Length 1087; Best Local Similarity 100.0%; Pred. No. 2.1e-236; Matches 1073; Conservative 0; Mismatches 0; Indels 0;
RESULT 4

US-09-890-688-25

Sequence 25, Application US/09890688

PUBLICATION NO. USZO030144475A1

GENERAL INFORMATION:
APPLICANT: Selah KATO
APPLICANT: Chikashi EGUCHI
APPLICANT: Chikashi EGUCHI
APPLICANT: Mihoro SEKI
ITILE OF INVENTION: Human Proteins and CDNAs thereof
FILE REFERENCE: 2001-1102A/WMC/00653
CURRENT PLING DATE: 2001-08-06
PRIOR FILING DATE: 2001-08-06
PRIOR APPLICATION NUMBER: JF 11-34684
PRIOR PLILING DATE: 1999-12-06
PRIOR PLILING DATE: 2000-02-08
PRIOR FILING DATE: 2000-02-10
PRIOR FILING DATE: 2000-02-10
PRIOR FILING DATE: 2000-02-10
PRIOR PLILING DATE: 2000-02-10
PRIOR PLILING DATE: 2000-02-10
PRIOR APPLICATION NUMBER: JF 2000-34091
PRIOR PLILING DATE: 2000-02-10
PRIOR APPLICATION NUMBER: JF 2000-35899
PRIOR PLILING DATE: 2000-02-14
PRIOR PLILING DATE: 2000-03-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (28)..(558)
US-09-890-688-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    409
```

원 Š g ઠે g ઠે g ઠે В ઠે 셤 ò ö

168

228 135 288 195

75

g

ઠે

ò 셤 Š g ò 쉱 ઠે

a

ઠે

348

255 408 315

375

435

495

468

```
316 CTTCCTGATCATGTGGCGGAGGCCAGAAGAAGAGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136 GGTCCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196 GAGCCCGCTCTTCAACAACGTCAAGCTACCAGAAAGCTTCCTGTGGAGCTCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           256 TGTTTTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376 CAGGAGTGGCCAGAACACACCTCTTACCCTGTATGAACTGACTAATGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                529 AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436 AGAGGATGAGGAGTTCCACGGGCTGGATGAAACCACTCTACTGCGGGCTCTGCAGGCCT
                                                                                                                                                                                                                                                                                                                                       109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      76 CITTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTATTAGAGGAACTGAGGAAGAAAGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOSTOLATORY SEQUENCE 533,7 APPLICATION US/09969034

Publication No. US20040110668A1

GENERAL INFORMATION:

APPLICANT: Burgess, Christopher C.

APPLICANT: Carroll, Eddie III

APPLICANT: Carroll, Eddie III

APPLICANT: Carroll, Eddie III

APPLICANT: Thiagalingam, Arnuthathi

APPLICANT: Hiagalingam, Arnuthathi

APPLICANT: Hiagalingam, Arnuthathi

APPLICANT: Lewis, Marcia E.

ITILE OF INVENTION: Nucleic Acid Sequences Differentially

ITILE OF INVENTION: Nucleic Acid Sequences

FILE REFERRACE: 1657/1032

CURRENT APPLICATION NUMBER: US/09/969,034

CURRENT PILICATION NUMBER: 60/237,271

PRIOR PILICATION NUMBER: 60/237,271

NUMBER OF SEQ ID NOS: 4494
                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                Score 515.8; DB 11; Length Pred. No. 3e-108; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     589 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGA 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTCAGCGA 534
CURRENT FILING DATE: 2001-10-02
PRIOR APPLICATION NUMBER: 60/237,271
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 4494
SOFTWARE: FASTESEQ FOR WINDOWS VERSION 4.0
SEQ ID NO 636
LENGTH: 559
                                                                                                                                                                                                                                           19.8%;
                                                                                                                                                                                                                                                Query Match 19.8
Best Local Similarity 99.6
Matches 517; Conservative
                                                                                                                                                          TYPE: DNA
CORGANISM: Homo sapiens
US-09-969-034-636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
US-09-969-034-533/c
                                                                                                                                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                  380
                                                                                                                                                                                                                                                                                           577
                                                                                                                                                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                                                                                                                                   517
                                                                                                                                                                                                                                                                                                                                                                                                                               500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACTCTACTGCGGGCTCTGCAGGCCCTACAGGCAGGGCAGAGGCCGAGATCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGACCTGTCTCCCTTTACTTCTTAC
                                                                                                                                                                                                                                                                                           634 GAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGAA--TTAAGAAGAAAGAGAACN
                                                                                                                                                                                                                                                                                                                                       TCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                 576 TCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGATTCCACGGGCTGGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACTCTACTGCGGGCTCTGCAGGCCCCTACAGGCAGAGGCCGAGATCATCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           337 TCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACTTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCCACCTTTCCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCCAAAGACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGGCACCAGGGAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGTGCTTCTTCTCGCCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTG
                                                                                                                                                                                                                                                  GAAAGCTTCCTGTGGAGTCGATTCTATTTAGAGGAACTGAGGAAGAAAGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCCACCTTTCCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTT
                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                      .,
                                                                                                                                                            DB 11; Length 634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6

US-09-969-034-636

US-09-969-034-636

Sequence 636, Application US/09969034

PUDLICATION NO. US20040110668A1

GENERAL INFORMATION:

APPLICANT: Burgess, Christopher C.

APPLICANT: Carroll, Eddie III

APPLICANT: Carroll, Eddie III

APPLICANT: Daived, Poornima

APPLICANT: Thiagalingam, Arunthathi

APPLICANT: Thiagalingam, Arunthathi

APPLICANT: Lewis, Marcia E.

TITLE OF INVENTION: Nucleic Acid Sequences Differentially

TITLE OF INVENTION: Expressed in Cancer Tissue

FILE REFERENCE: 1657/1032

CURRENT APPLICATION NUMBER: US/09/969,034
                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAACCTGACACTTTATATGTGTTCACACATGTAAGT 957
                                                                                                                                                                                                        2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAACCTGGCACTTTATATGTGTTCACACATGTAAGT 1
                                                                                                                                                          Score 603.6; DB 11
Pred. No. 1.9e-128;
0; Mismatches 5;
      ) ORGANISM: Homo sapiens
PEATURE:
NAME/KRY: misc_feature
LOCATION: 577
OTHER INFORMATION: n = A,T,C or (18.09-969-034-727)
                                                                                                                                                        Query Match 23.2%;
Best Local Similarity 98.7%;
Matches 629; Conservative (
  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                       381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  801
                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37
```

g

g

ò

a

ò

g

ò 요 8

ò

171

ઠે 셤 ò g ઠે 셤 δ 셤 ઠે 셤 Š g ઠે 셤 ઠે 셤 ઠે 셤

64

231 124 291 351 244 411 304

```
Sequence 13, Application US/10115482
| Publication No. US2003021257A1
| GENERAL INCORMATION:
| TILLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING THEM
| TITLE OF INVENTION: AND METHODS
| TITLE OF INVENTION: OUSING THE SAME
| FILE REFERENCE: 21404-322D
| CURRENT APPLICATION NUMBER: US/10/115,482
| PRIOR PRILING DATE: 2001-04-05
| PRIOR PELING DATE: 2001-04-03
| PRIOR PILING DATE: 2001-04-05
| PRIOR PILING DATE: 2001-04-10
| PRIOR PILING DATE: 2001-04-10
| PRIOR PILING DATE: 2001-04-12
| PRIOR PILING DATE: 2001-04-12
| PRIOR PILING DATE: 2001-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125 CCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGGATGACGGTGATGGAAGCTCAGGAGG 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               412 CCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAG 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            472 GAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGA 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      362 GAGTGGC--AGAACACTCCGTCTTTACCCTGTATGAACTGATTAATGGGGAAGACACAGA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65 TACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245 ATTAGAGGAAACTGAGGAAAAAAAAGGGAACCTCGAGTTGGATTAGAACAAGAACAAGTCCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 305 CCTGATCATGTGGCGGA-GCCAGAAGAATGGGGGAAACTCATCTATCAGTGG--TTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 GGGGACTACGATGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172 TACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            232 CCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292 CCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352 ATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTT
                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                         Score 395; DB 11; Length 609;
Pred. No. 2e-80;
0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        112 GGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     532 GGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGG 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420 ggargaggagriccacggcriggargaa-ccacrcracrgcgg 461
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 610
; LENGTH: 609
; TYPE: DNA
; ORGANISM: Homo sapiens
; FRATURE:
; NAME/KEY: misc_feature:
; NAME/KEY: misc_feature
; JOHER INFORMATION: n = A,T,C or G
US-09-969-034-610
                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 96.5%;
Matches 447; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-115-482-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            506 TATCAGTGNGTTTCCAGGAAGTGGCCAAGAACTAACTCNGTCTTTACCCTGTATGAACTTG 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          512 ACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGGTTGAAGGCCACTCTACTG 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGCTCTGCAGGCCCTACAGCAGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGC 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           386 CGGCTCTGCAGGCCTTANAGCAGGAGCANAAGGCCGAGATCATCANTGTCAGCGATGGN 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTT 691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCAC 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266 CCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCAC 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            752 CAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCC 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                206 CAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTCTCACACCCCC 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTT 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCCAGGGTCTGTAAACCTGACA 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146 ATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTT 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86 CTCGCCCTACCTCCTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACA 27
                                                                                                                                                                                                                                                                                                                                                                                                                     455 TATCAGTGGGTTTCCAGGA--GTGGCCAGAACAACTCCGTCTTTACCCTGTATGAAC-TG
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                               3;
                                                                                                                                                                                                                                                                                                      Score 464.4; DB 11; Length 507;
Pred. No. 1.9e-96;
0; Mismatches 12; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8

US-09-969-034-610

US-09-969-034-610

Sequence 610, Application US/09969034

Publication No. US20040110668A1

GENERAL INFORMATION:

APPLICANT: Bargess, Christopher C.

APPLICANT: Carroll, Eddie III

APPLICANT: Catio, Theodore J.

APPLICANT: Daived, Poornima

APPLICANT: Molino, Gary A.

APPLICANT: Hiagalingam, Arunthathi

APPLICANT: Lewis, Marcia B.

TITLE OF INVENTION: Nucleic Acid Sequences Differentially

TITLE OF INVENTION: Aspressed in Cancer Tissue
  SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTATATGTGTTCACACATGTAAGT 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 1657/1032
CURRENT APPLICATION NUMBER: US/09/969,034
CURRENT FILING DATE: 2001-10-02
PRIOR APPLICATION NUMBER: 60/237,271
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 4494
                                                                                                                                      FEATURE:
NAME/KEY: misc_feature
LOCATION: 327, 340, 357, 368, 469, 498
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTATATGTGTTCACACATGTAAGT 1
                                                                                                                                                                                                                                                                                                   Query Match 17.8%;
Best Local Similarity 97.0%;
Matches 491; Conservative 0
                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                             US-09-969-034-533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56
```

```
61 GCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGGATGGGTTTCTCACACCCCATATG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 ccraccrecrireccarecradacrerecriganecangereraracereacaerrira 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 TCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCCTTNTTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           637 CGFCAAGTTCTTCTAGCAGGACCTGTCTCCTTTACTTCTTACCTCCACCTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CGTCAAGTTCTTCTAGCAGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAAAAGGACTCCAGTCCTGAAGGCTGGGAACCTGGGGATGGGTTTCTCACACCCCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697 GCTTTCAAAAGGAGACAGACCCCAGTGTCCCCCCAAAGACTGGGATCTGTGACTCCACCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2264, Application US/09998598
Patent No. US20020150922A1
GENERAL INFORMATION:
APPLICANT: Stolk, John A.
APPLICANT: Ku, Jiangchun
APPLICANT: Chenault, Ruth A.
APPLICANT: Madelein Joy
TITLE OF INVENTION: ComPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF COLON CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12.2%; Score 317.4; DB 11; Length 349; 98.5%; Pred. No. 1.1e-62; tive 0; Mismatches 5; Indels 0;
                                                                                                                                                            GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Barle, Jon H.

APPLICANT: Carroll, Eddie III

APPLICANT: Carroll, Eddie III

APPLICANT: Catino, Theodore J.

APPLICANT: Daived, Poornima

APPLICANT: Thiagalinapi, Arunthathi

APPLICANT: Lewis, Marcia E.

TITLE OF INVENTION: Nucleic Acid Sequences Differentially

TITLE OF INVENTION: Nucleic Acid Sequences

TITLE OF INVENTION: Nucleic Acid Sequences

TITLE OF INVENTION: Nucleic Acid Sequences

CURRENT APPLICATION NUMBER: US/09/969,034

FILE REPERENCE: 1667/1032

CURRENT APPLICATION NUMBER: 00/237,271

PRIOR APPLICATION NUMBER: 2000-02-10

NUMBER: OF SEQ ID NOS: 4494

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 665

LENGTH: 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGTGTTCACACATGTAAGNCC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGTGTTCACACATGTAAGTAC 959
                                                                           ; Sequence 665, Application US/09969034; Publication No. US20040110668A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc_feature
i_LOCATION: 233, 274, 278, 321
i_COTHEN INFORMATION: n = A,T,C or G
US-09-969-034-665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 98.5
Matches 318; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
US-09-998-598-2264/c
                                               US-09-969-034-665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              125 GGTTCTGTCCATCTGCTGCCTGCAGACAGTCAAGCATGATATGGATGCTCAGGA 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            302 TTTCCTAATCATGTGGCGGAGGCCAGAAGAATGGGGAAAACTCATCTATCAGTGGGGTCTC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGAATGAGGTGTTCCACGGACTAAAGGAGGC----CTTCTGTGGGCTCTGCAGGCCCT 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGAGTGGCCAGAACAACTCCGTACTTAGCCTGTATGAGCTGACCAATGGGGAAGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 TGTATTAGAGGAACTGAGGAAGAATGGGAACTTACAGTGGCTGGATAAGAGCAAGTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cresecrarrareareareacearrireascreserrereseascrarececriceece---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCCTGCTCTTCAGCAACATCAAGCT---GTGGAAGCTTCCTGTGGGATCAATCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          69; Indels 10; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 13.6%; Score 353.6; DB 17; Length 545; Best Local Similarity 84.6%; Pred. No. 6.4e-71; Matches 435; Conservative 0; Mismatches 69; Indels 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    589 ACAGCAGGAGCACAAGGCCGAGATCATCACTGTC 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  478 rcagradgaacaraaggcrgagarcarcaccarc 511
PRIOR APPLICATION NUMBER: 60/285, 890
PRIOR FILING DATE: 2001-04-23
PRIOR FILING DATE: 2001-04-24
PRIOR FILING DATE: 2001-04-24
PRIOR PELICATION NUMBER: 60/286, 068
PRIOR FILING DATE: 2001-04-25
PRIOR FILING DATE: 2001-04-25
PRIOR FILING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
PRIOR PILING DATE: 2001-05-02
PRIOR PILING DATE: 2001-05-02
PRIOR PILING DATE: 2001-05-02
PRIOR PILING DATE: 2001-05-05
PRIOR FILING DATE: 2001-05-05
PRIOR FILING DATE: 2001-05-15
PRIOR PILING DATE: 2001-05-15
PRIOR PILING DATE: 2001-05-17
PRIOR FILING DATE: 2001-05-17
PRIOR FILING DATE: 2001-05-31
PRIOR FILING DATE: 2001-05-31
PRIOR FILING DATE: 2001-06-08
PRIOR PILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (18)..(534)
US-10-115-482-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
```

δ

ò g ઠે 엄 ò 셤 ð

g

Š

셤 δ a

ò

ö

969

9

756

셤

ઠે

g

ò

셤

δ

쉽

ઠે

ઠે

ద ò g Š

```
181 rrdgaraagagaagrccagcrrccrgarcargregegegegegegaaagagaaregegeaaa 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               209 ACGGTGATGGAAGCTCAGGAGGCCCCCTTCAACAACGTCAAGGTACAGCGAAAGGTT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              269 croscoccrosrecroscrosrocrererrerecescoccrocacaacas 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149 cereregaeregarecagarrerarragaegaaereagaagaaagaaaeceeegaeree 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            269 ACGCTGATGGAAGCTCAGGAGGCCCGCTCTTCAACGTCAAGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Fanger, Gary
APPLICANT: Vedvick, Tom
APPLICANT: Vedvick, Tom
APPLICANT: Pan, Liqun
APPLICANT: Low NUMBER: 2000-12-13
CURRENT APPLICATION NUMBER: 2000-12-13
NUMBER OF SEQ ID NOS: 1864
SOFTWARE PASSER FOR Windows Version 3.0
IENGTH: 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10.3%; Score 269; DB 9; Length 26:
100.0%; Pred. No. 1.3e-51;
ive 0; Mismatches 0; Indels
                                                                                                                      449 CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                      241 crcarcrarcagradgarriccagaagrag 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crcarcrarcagragarrrccaggagrag
                                                                                                                                                                                                                                                                             Sequence 1380, Application US/09736457; Patent No. US20020186637A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1380, Application US/09902941; Patent No. US20020172952A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Henderson, Robert A. APPLICANT: Wang, Tongtong APPLICANT: Watenabe, Yoshihiro APPLICANT: Johnson, Jeffrey C. APPLICANT: Retter, Marc W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.
Matches 269; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
CORGANISM: Homo sapien
US-09-736-457-1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-902-941-1380/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           449
                           389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                    a
                                                                                                                      ò
                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        328
                                                                                                                                                                                                                                                                                                                                                                                                                269 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAAACAGTCCAGTG 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            209 ACGGTGAFGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGGCTACAGCGAAAGCTT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAAGGGGAACCTCGAGTGG 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGGATAAGAGCAAGICCAGCITCCIGATCATGIGGGGGAGGCCAGAAGAATGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 ACGGTGATGGAAGCTCAGGAGGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGTGGGGTCGATCCCAGATTGTATTAGAGGAACTGAGGAAGAAGAAGACGGAACCTCGAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CTGGCCGCCTGGTGCTCGTCGTCCTTCTGCCGCTGCACAAACAGTCCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        269 ACGGTGATGGAAGCTCAGGAGGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACGGTGATGGATGCTCAGGAGAGACCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2400, Application US/09998598

Sequence 2400, Application US/09998598

GENERAL INFORMATION

APPLICANT: Stolk, John A.

APPLICANT: Xu, Jiangchun

APPLICANT: Xu, Jiangchun

APPLICANT: Xu, Jiangchun

APPLICANT: Meagher, Madelein Joy

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND

TITLE OF INVENTION: DIAGNOSIS OF COLON CANCER

FILE REPERENCE: 210121.561

CURRENT PILING DATE: 2001-11-16

NUMBER OF SEQ ID NOS: 2606

SOFTWARE: Corixa Invention Disclosure Database
                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                              Query Match
10.3%; Score 269; DB 9; Length 269;
Best Local Similarity 100.0%; Pred. No. 1.3e-51;
Matches 269; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 10.3%; Score 269; DB 9; Length 26
Best Local Similarity 100.0%; Pred. No. 1.3e-51;
Matches 269; Conservative 0; Mismatches 0; Indels
FILE REFERENCE: 210121.561
CURRENT APPLICATION NUMBER: US/09/998,598
CURRENT FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 2606
SOFTWARE: Corixa Invention Disclosure Database
SEQ ID NO 2264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCATCTATCAGTGGGTTTCCAGGAGTGG 1
                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
US-09-998-598-2264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , ORGANISM: Homo sapiens
US-09-998-598-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-09-998-598-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 2400
LENGTH: 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     329
```

ö

```
g
                                                                                                                                                          9
9
                                                                                                                                                                                                                                                                          $ g
                                                                                                                                                                                                                                                                                                                                                                                                                      ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        269 ACGGTGATGGAAGCTCAGGAGACCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGG 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGGCGGAGGCCAGAAGAATGGGGGGAAA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGGATAAGAGCAAGTCCAGCTICCTGATCATGTGGCGGGGGCCAGAAGAATGGGGGAAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                269 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTCTGCCGCCTGCACAAACAGTCCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGGCTACAGCGAAAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAAGGGAACCTCGAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         209 CTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAAAAAGGTCCAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-49-626-1380/c
US-09-49-626-1380/c
US-09-49-626-1380, Application US/09849626

Sequence 1380, Application US/09849626

Publication No. US20020197669A1

GENERAL INFORMATION:

APPLICANT: Bangur, Chaitanya

APPLICANT: Wang, Ajun

APPLICANT: Wang, Ajun

APPLICANT: Wang, Ajun

APPLICANT: Wang, Ajun

APPLICANT: Wang, Candran

TITLE OF INVENTION: COMPOSITIONS NO METHODS FOR THE THERAPY AND

TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER

TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER

TITLE OF INVENTION: US/09/849,626

CURRENT FILING DATE: 2001.05-03

NUMBER OF SEQ ID NOS: 1926

SOFTWARE: PRESENCE

LENGTHARE: PRESENC
APPLICANT: Marnerakis, Margarita
APPLICANT: Carter, Darrick
APPLICANT: Fanger, Gary R.
APPLICANT: Fanger, Thomas S.
APPLICANT: Wordrick, Thomas S.
APPLICANT: McNabb, Andria S.
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121-478C17
CURRENT FILING DATE: 2001-07-10
NUMBER OF SEQ ID NOS: 2002
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1380
LENGTH: 269
TYPE: DNA
CORGANISM: Homo sapiens
US-09-902-941-1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 10.3%; Score 269; DB 9; Length 269; Best Local Similarity 100.0%; Pred. No. 1.3e-51; Matches 269; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
10.3%; Score 269; DB 9; Length 269;
Best Local Similarity 100.0%; Pred. No. 1.3e-51;
Matches 269; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCATCTATCAGTGGGTTTCCAGGAGTGG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCATCTATCAGTGGGTTTCCAGGAGTGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ) ORGANISM: Homo sapien
US-09-849-626-1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

Search completed: June 29, 2005, 12:01:55 Job time: 1021 secs

```
June 28, 2005, 15:06:07; Search time 5606.03 Seconds (without alignments) 17687.639 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                               US-08-731-499-4
2605
1 CAAGCTCGAAATTAACCCTC......CTGGCGTTACCCAACTTAAT 2605
                                                                                                                                                                                                                                                                                                                          68479088
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                        34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                      IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gb_est1:
gb_htc: *. *.
gb_est43: *. *. *.
gb_est6: *. *. *.
gb_gs81: *. *. *. *.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                      Searched:
                                                                                                 Run on:
```

		di			SUMMARIES		
Result		Query	•				
N I	Score	Match	Match Length DB	8 :	ID	Description	
	1 1041	40.0	1041	٣	CR620674	CR620674 full-leng	b
	2 1040	39.9	1060	m	CR611687	CR611687 full-leng	, Em
•	3 1016	39.0	1016	m	CR615047	CR615047 full-leng	מו
-	4 965.4	37.1	1021	7	AL561088	AL561088 AL561088	,
υ	5 947.2	36.4	1079	'n	BX357325	BX357325 BX357325	
_	6 923	35.4	1039	S	BM927839	BM927839 AGENCOUR	H
U	7 914.8	35.1	971	Н	AL582492	AL582492 AL582492	
	8 903	34.7	1005	4	BM554015		ы
	688	34.1	982	9	CA487570	CA487570 AGENCOURT	ы
, , ,	0 879.2	33.8	972	S	BX383031	BX383031 BX383031	
ਜ	1 868	33.3	918	S	BQ672154	BQ672154 AGENCOURT	'n
7	2 859	33.0	936	7	CO581180	COS81180 ILLUMIGEN	72
H	3 854.6	32.8	1049	ഗ	BM919274	BM919274 AGENCOURT	ы
Ä	4 844.8	32.4	925	4	BG675348	BG675348 602621657	7
H	5 843.8	32.4	066	4	BMS55365	BMS55365 AGENCOURT	-
Ü	6 838	32.2	959	Ŋ	BX357450	BX357450 BX357450	
-	7 831.6	31.9	1046	4	BM810698	BM810698 AGENCOUR	_F
7	8 830.4	31.9	901	4	BM018273	BM018273 603645927	7
ਜ	9 826.4	31.7	961	Ŋ	BQ882132	BQ882132 AGENCOURT	F4
Ñ	0 822.8	31.6	897	9	CA455057	CA455057 AGENCOURT	<u>-</u>
2	1 814.6	31.3	859	4	BG674662	BG674662 602620732	~
6	2 813.6	31.2	919	4	BG742758	BG742758 602632982	~
2	3 811.4	31.1	957	7	CO726143	CO726143 ILLUMIGEN	7.
ñ	4 811.2	31.1	943	'n	BQ673129	BQ673129 AGENCOURT	F

CO582238 ILLUMIGEN BU540421 AGENCOURT BU168204 AGENCOURT CA489194 AGENCOURT EM414026 AGENCOURT B1550414 603192475 AL528911 AL528911 CA48983 AGENCOURT AC646983 AGENCOURT AC64605 AGENCOURT B163711 AGENCOURT B1163711 AGENCOURT CA487561 AGENCOURT CA487561 AGENCOURT CA487561 AGENCOURT CA487561 AGENCOURT AC002500 Mus musecu BM476382 AGENCOURT AC002500 Mus musecu BM476382 AGENCOURT AC002500 Mus musecu BM561840 AGENCOURT	mRNA 2 of Neur an). iata; Ver rrhini; H Polayes, D malizatio	Genoscope - Centre National de Sequencage : - FRANCE (E-mail : segref@genoscope.cns.fr sed with a NotI-oligo(dT) primer. Five prime rand cDNA was digested with Not I and cloned V sites of the pCMVSPORT 6 vector. Library was constructed by Life Technologies, a ilers sapiens" "" 1966" 44G22" ieuroblastoma Cot 50-normalized"	40.0%; Score 1041; DB 3; Length 1041; ; Conservative 0; Mismatches 0; Indels 0; Gaps 0; TGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTTTACGTTACAACCGAATG 188
COS82238 BUIS40421 BUIS6204 CA489199 BIS50414 ALS28913 CA489833 BUI83716 BUI83716 BUI83716 BUI83716 BUI83716 CA4897315 BUI83718 CA487561 BUI83718 CA48777 AKO03715 BMKO03715 BMKO03715 BMKO03715 BMKO03715 BMKO03715 BMKO03715	GNN 11 b b b b b b b b b b b b b b b b b		Score 1041; Pred. No. 1. 0; Mismatches GGCAGTATCGCTTCC GGCAGTATCGCTTCC
L R R R A A A A A R R R R R R R R R R R	clone Homo 50148 an) a; Ch a; Pr 41) ilbra ang El	COO	. 0. 6
909 872 872 872 872 872 911 911 1027 1067 974 977 977 977 977 977 977 97	CR620674 CR620674 104 105-normalized of Homo sapie CR620674 CR620674 CR620674 CR620674 CR620674 HCC, CNSLT_CDNA. HOMO sapiens Eukaryota; Metazoa; Chordat Mammalia; Eutheria; Primete 1 (bases 1 to 1041) Li, W.B., Gruber, C., Jessee, Full-length cDNA libraries Unpublished Contact: Feng Liang Email Contact: Feng Liang Email Raraday Avenue 2 (bases 1 to 1041) Canaga Avenue 2 (bases 1 to 1041) Day (fulllength: invitroge Genoscope. 2 (bases 1 to 1041)	Submitted (20-JUL-2004) Ge Br 191 91006 EWRY cedex - Neb : www.genoscope.cns. 1st strand cDNA was primed end enriched, double-stran into the Not I and EcoR V was normalized. Library was division of Invitrogen. Location/Qualifie 1. 1041 /organism="Homo s //mol_type="mRNA" /db_xref="txxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	40.0%; Local Similarity 100.0%; les 1041; Conservative (129 TGAGTTTGGAGTGGCCGTGG
33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	CR620674 full-length cDNA 50-normalized of CR620674.1 GI:SC CR010000000000000000000000000000000000	Submitted BP 191 910 BP 191 910 BP 191 910 Ist Web: www into the N Was normal division o	milarit Conse GAGTTTC
811 807 807 807 799.4 7798.8 7790.6 776.8 775.2 775.2 777.5 777.2			Match focal Si s 1041; 129 T
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RESULT 1 CR620674 LOCUS DEFINITION ACCESSION VERSION KEYNORDS SOURCE ORGANISM AUTHORS TITLE TOURNAL REPERENCE TOURNAL REPERENCE TOURNAL REPERENCE TOURNAL REPERENCE TOURNAL REPERENCE TITLE THORS TITLE THORS TITLE THORS THORS TITLE THORS THOR	JOURNAL COMMENT FEATURES SOURCE	~ ~

N

```
Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :
BP 191 91006 BVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
191 91006 BVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
192 strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell line) Cot 25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168
                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (Dases 1 to 1060)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full.length cDNA libraries and normalization
Unpublished
cells (Ramos cell line)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   crrracerracaaccaareregacacreecagaageageageageregecegecreeregere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 GGTCCTGTCCTTCTGCCGCCTGCAACAACAGTCCAGCATGACGCTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201 GAGCCCGCTCTTCAACAAGCTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTATTAGAGGAACTGAGGAAGAAAGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGAGTGGCCAGAACACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cresecracracearescareagrirceagrescerescagracecrrecracerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGGATGAGGAGTTCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCT
                                                                                                                                                                                         Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39.9%; Score 1040; DB 3; L
larity 100.0%; Pred. No. 2.3e-217;
Conservative 0; Mismatches 0;
   full-length cDNA clone CS0DL001YJ06 of B
                 25-normalized of Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODLO01YJ06"
/tissue_type="B_cells (Ramos /plasmid="pCMVSPORT_6")
                                                                                                                                                                                                                                                                                                                                                                                                                              1. .1060
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                             CR611687.1 GI:50492494
HTC; CNSLT_cDNA.
Homo sapiens (human)
                                                                                                                                                                                                                                             (bases 1 to 1060)
                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                               Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Simi
Matches 1040;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                                                                                                                                                 source
   DEFINITION
                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                         ORGANISM
                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGTGTGGCCCC 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                  248
                                               120
                                                                             308
                                                                                                           180
                                                                                                                                         368
                                                                                                                                                                     240
                                                                                                                                                                                                   428
                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                         548
                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                   608
                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                    CAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCATCCTAGACTGTCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAAGCCCTGGCTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTTCCAGGCAATATGAAGATGATGGGGGGCCCC
                                                                                              TGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCCAGGAGAGCCCGCTCTTCAACAACG
                                                                                                                                       TCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGA
                                                                                                                                                          TCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGA
                                                                                                                                                                                                                    GGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACT
                                                                                                                                                                                                                                                                                                                                                    ccerctriaccergratgaecraargeggaagacacagaggargaggaerrecagg
                                                                                                                                                                                                                                                                                                                                                                                                     GGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGAGGAGACAAAGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITACTICITACCCCCCCCCCCCTTTCCAGGCCTTTCAAAGGAGAGACGCAGACCCAGTGTCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGGCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGGATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGTGAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGGAGAAAATATGTGCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    addoadgegronghaaacchdacachtranangrongacacangraagracanacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCTTTAGCTGCTGTTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTAGCTGCTGTTTGCCT
                  TGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACG
                                                                                                                                                                                                    AGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGGGGA
                                                                                                                                                                                                                                                                                           GGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTTCCAGGAGTGGCCAGAACAACT
                                                                                                                                                                                                                                                                                                                         CCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACG
                                                                                                                                                                                                                                                                                                                                                                                   TGGGGATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGCTGCAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                               AGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACACCGATTTATGATATAAA 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1149
                                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                               61
                                                                             249
                                                                                                           121
                                                                                                                                       309
                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                         489
                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                               609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                  189
                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
CR611687
LOCUS
                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                          ద
                                                                                                원 장
                                                                                                                                                             셤
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                  ò
                                                                        ò
```

ö

288

200

228 140

80

348

260 408 320 468 528 440 588 500

g

HTC 21-JUL-2004

linear

mRNA

1060 bp

CR611687

ö

Gaps

ö

188

9

248 120 308 180 368 240 428 300 488 360 548 420 608 480

```
1029 CCCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAGCCCTGGCTGCAGGCA 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGTCTTTACCCTGTATGAACTGATGGGGAAGACACAGAGGAGTGAGGAGTTCCACG
                                                                                                                                                                       TGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTTCTGCCGCC
                                                                                                                                                                                                                                                                              AGCCAGGGTCTGTAAACCTGACACTTTATATATGTGTTCACACATGTAAGTACATAACACACA
                                                                                                                                                          TGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACAACCGAATG
                                                                                                                                                                                                              TGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTCCTCGCTGGTCCTGTCCTTCTCCCGCC
                                                                                                                                                                                                                                                               TGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGGCCCGCTCTTCAACAACG
                                                                                                                                                                                                                                                                                                                    TCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGA
                                                                                                                                                                                                                                                                                                                                  TCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGA
                                                                                                                                                                                                                                                                                                                                                                        AGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGA
                                                                                                                                                                                                                                                                                                                                                                                     GGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGGGGGAGAAGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGGCTGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGGATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCCATCCTAGACTGTCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCCCTTTAGCTGCTGTTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTTCCAGGAGTGGCCAGAACAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTAGCAGGGACCTGTCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITACITICITACCICCCACCITICCAGGCTITICAAAAGGAGACAGACCCAGIGICCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGACTGGATCTGTGACTCCACAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACC
                                                     25-normalized"
                                                                                                                                0; Indels
                                                                                                      39.0%; Score 1016; DB 3; L
100.0%; Pred. No. 4.2e-212;
ive 0; Mismatches 0;
                                                     Çot
            /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODC0074C08"
/tissue_type="Neuroblastoma/plasmid="pcMVSPORT_6"
    organism≃"Homo sapiens'
                                                                                                      Query Match
Best Local Similarity 100.
Matches 1016; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 (
                                                                                                                                                          129
                                                                                                                                                                                    -1
                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                    309
                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                        369
                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                          429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      696
                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage:
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.

Location/Qualifiers

1. 1016
                                                                                                                                                                                                                                                                                                                    1008
                                                                                                                                                                                                                                                                                                                                                                        1068
                                                                                                                                                                                                                                                                                                                                                                                                                         1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-JUL-2004
  648
                           560
                                                     708
                                                                            620
                                                                                                      768
                                                                                                                                680
                                                                                                                                                          828
                                                                                                                                                                                  740
                                                                                                                                                                                                              888
                                                                                                                                                                                                                                      800
                                                                                                                                                                                                                                                               948
                                                                                                                                                                                                                                                                                          860
                                                                                                                                                                                                                                                                                                                                              920
                                                                                                                                                                                                                                                                                                                                                                                                980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 1016)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Pull-length cDNA libraries and normalization
                                                  CTAGCAGGACCTGTCTCCTTTACTTCTTCCACCACTTTCCAGGGCTTTCAAAAGG
                                                                                                                                                                       CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGAACTTATATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                                                                      ATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCTTT
                                                                                                                                                                                                                                                                CCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACA
                                                                                                                                                                                                                                                                                                                    CATGTAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCAC
                                                                                                                                                                                                                                                                                                                                  CATGTAAGTACATACACACACGCCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                       ATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTT
                                                                                                      AGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CR615047 1016 bp mRNA linear HTC Sfull-length cDNA clone CS0DC007YC08 of Neuroblastoma Cot 25-normalized of Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CR615047
CR615047.1 GI:50495854
HTC; CNSLT_CDNA.
HOMO Sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 1016)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genoscope
                                                                                                                                                                                                                                                                                                                    949
                                                                                                                                                                                                                                                                                                                                                                      1009
                                                                                                                                                                                                                                                                                                                                                                                                                          1069
                           501
                                                   649
                                                                            561
                                                                                                      709
                                                                                                                                621
                                                                                                                                                        694
                                                                                                                                                                                  681
                                                                                                                                                                                                            829
                                                                                                                                                                                                                                      741
                                                                                                                                                                                                                                                               889
                                                                                                                                                                                                                                                                                          801
                                                                                                                                                                                                                                                                                                                                              861
                                                                                                                                                                                                                                                                                                                                                                                                921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
CR615047
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                     g
                    셤
                                                                     셤
                                                                                                                             g
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
 ઠે
                                                  ò
                                                                                                   Š
                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

1028

900

968 840

780

848

720 908

540 728 600 788 9

셤

ò

```
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BX357325 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA clone CSD1024YM13 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      928
                                                                                                                                                                               448
                                                                                                                                                                                                                  592
                                                                                                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                                                                                           712
                                                                                                                                                                                                                                                                                                                                                                                            628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                     269 TTAGAGGAACTGAGGAAGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTC
                                                                                                                                              AGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAG
                                                                                                                                                              GATGAGGGGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                                               CAGGGACCTGTCTCCCTTTACTTCTTACCTCCCCACCTTTCCAGGCCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     689 cereaagecreseacereseareserrrereacacecerargecrereregaras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCCATCTATCAGTGGGTTTCCAGG
                                                                                                           329 crearcardregecedadeccadadadadecedadadecrearcarcadecedentecade
                                                                                                                                                                                                                  GATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAG
                                                                                                                                                                                                                                                                                                                                                           CAGGGACCTGTCTCTTTACTTCTTACCTCCCACCTTTCCAGGGCTTTCAAAAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                 AGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGAAGGCTGGGACCTGGGGTTTCTCACACCCCCATATGTCTGCCCTTGGATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             749 GGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryotzi Metazoa; Chordata; Craniata; Vertebrata; Butelec Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (Dass 1 to 1079)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Unpublished (2001)
On May 5, 2003 this sequence version replaced gi:30380160. Contact: Genoscope - Centre National de Sequencage
2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCTGGCTGCAGGCAGCCTTCCAGGCAA 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BX357325.2 GI:46551167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                           653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     953
                                                                                                                                                                                                                                                                                        593
                                                                                                                                                                                                                                                                                                                          509
                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1073
                                                                         413
                                                                                                                                                                                                                  533
                                                                                                                                                                                                                                                   449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                989
                                                                                                                                              473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
BX357325/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                        d
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                        à
                                                                                                       셤
                                                                                                                                              ð
                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 1021)

2. 1, Mas. Gruber, C., Jessee, J. and Polayes, D.

3. Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

4. Unpublished (2001)

5. Ton Feb 15, 2001 this sequence version replaced gi:31285217.

5. Contact: Genoscope

6. Genoscope - Centre National de Sequencage

7. True Gaston Cremieux, CP 5706 - 91057 ENRY cedex - FRANCE

8. Email: seqref@genoscope.cns.fr. Web: www.genoscope.cns.fr

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                               AL561088 Homo sapiens B CELLS (RAMOS CELL LINE) COT 25-NORMALIZED Homo sapiens CS0DL001YJ06 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTA 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="1st strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1089 GCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGTGTGG 1144
GCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTACTACGATGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gabs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CS0DL001DE03QP1&c=8673.f. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1021;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 37.1%; Score 965.4; DB 1; Similarity 98.8%; Pred. No. 5.4e-201; 77; Conservative 5; Mismatches 6;
                                                                                                                                                                                                                                     AL561088.3 GI:46186449
EST.
                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S:
Matches 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113
                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                            RESULT 4
ALS61088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

g

셤

ò

상 임

ò

g

201

141

81

22

```
/mol_type="mRNA"
/mol_type="mRNA"
/db_tref="taxon:9606"
/clone="type="hepatocellular carcinoma, cell line"
/tissue_type="hepatocellular carcinoma, cell line"
/tissue_type="hepatocellular carcinoma, cell line"
/tissue_type="hepatocellular carcinoma, cell line"
/lab host="DHAHIOB (phage-resistant)"
/clone lib="NHH MGC_100"
/note="Organ: liver; Vector: pOTB7; Site_1: Xho1; Site_2:
/note="Organ: liver; Vector: liver; Site_1: Xho1; Site_2:
/note="Organ: liver; Vector: liver; Site_1: Xho1; Site_2:
/note="Organ: liver; Vector: liver; Site_1: Xho1; Site_2:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGGCTGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTG 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1039 bp mRNA linear EST 12-MAR-2002
-6729868 NIH_MGC_100 Homo sapiens cDNA clone IMAGE:5797676
                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

    (bases 1 to 1039)

          320 TGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATC
                                                                                                              260 CTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACACGTA
                                                                                                                                                                                                                  AGTACATACACACACGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTT
                                                                                                                                                                                                                                                     200 AGTACATACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCACTTT
                                                                                                                                                                                                                                                                                                                                                                                                140 AGCTGCTGCTCCCCTTCTCAGGCTGCTGGATCCTTCCTAGGGGATGGGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80 CCTGGCTGCAGGCACCTTCCAGGCAATATGAAGATAGGA-GCCCACGGCCTGGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIHOGO http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-remail.nih.gov
Tissue Procurement: CGAP (Stanford)
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LINL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2024 row; g column: 21
High quality sequence stop: 743.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35.4%; Score 923; DB 5; Length 1039; 95.7%; Pred. No. 1.1e-191; ive 0; Mismatches 37; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1135 AGAGGTGTGGCCCCAC 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM927839.1 GI:19378218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGTGTGCCCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 95.7
Matches 991; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGENCOURT 6729868
5', mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM927839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM927839
                                                                                                                                                                                                                  955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM927839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                          8
                                                                                                                            셤
                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime
end enriched, double-strand cDNA was digested with Not I and cloned
into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library
was normalized. Library was constructed by Life Technologies, a
division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xrefe="taxon:9606"
/clone="CSOIQATMAI3"
/tissue type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo (dT)
primer. Five prime end enriched, double-strand cDNA was
digested with NotI and cloned into the NotI and ECOR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCCAAAAGGACTCCAGTCC 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATC 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGACCTGTCTCCCTTTACCTCCTCCCACCTTTCCAGGGCTTTCAAAAGGAGACAG 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCTTCTSCCGCCTGCACAAACAGTCCAGCATGACGTGATGGAAGCTCAGGAGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCGGAGGCGTCAAGTTCTTCTAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCATGTGGCGGAGGCCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rescensia de la reconstrución de la reconstructo de 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGGCTCTGCAGGCCCTACAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGACCTGTCTCCTTTACCTCCCCACCTTTCCAGGGCTTTCCAAAAGGAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCCAAAAGGACTCCAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                           For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CS0DI024AG07NP1&c=8673.f. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 947.2; DB 5; Length 1079; Pred. No. 5.4e-197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36.4%;
ilarity 98.4%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                  8673.£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

ъę

4

Gaps

```
1. .971
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DL001YJ06"
                                                     AL582492
AL582492.3 GI:46260956
EST.
                                                                                     Homo sapiens (human)
                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
RESULT 7
AL582492/c
LOCUS
                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                               DEFINITION
                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A---GGGGATGGGGGAAGCCCTGGCTGCAGG-CAGCCTTCCAGGCAATATGAAGATAGGA 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160
                                          220
                                                                                     280
                                                                                                                                340
                                                                                                                                                     244
                                                                                                                                                                            400
                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                520
                                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                          580
                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                         544
                                                                                                                                                                                                                                                                                                                                                                                               700
                                                                                                                                                                                                                                                                                                                                                                                                                    604
                                                                                                                                                                                                                                                                                                                                                                                                                                          760
                                                                                                                                                                                                                                                                                                                                                                                                                                                              664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   963
                                                               124
                                                                                                           184
                                                                                                                                                                                               304
                    64
                                                                                                                                             AAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCTATCAG
                                                                                                                                                                                                                                                                            TGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGG
                                                                                                                                                                                                                                                                                                                      GAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGGACTCCAGTCCTGAAGGCTGGGACTGGGGGATGGGTTTCTCACACCCCCATATGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACAC--TTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACCTTTATATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCT-CCACCCCTTTAGCTGCTGGTGCTCCCCTCTCAGGGCTGGTGCTGATCCCTTTCC
             GGGTGGCCTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTC
                                                         CCACCCTTCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGG
                                                                                                                                GCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCGAACAGCGAAAGCTTCCTGTGGAGTCG
                                                                                                                                                                                                ATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGC
                                                                                                                                                                                                                                                                TGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGG
                                                                                                                                                                                                                                                                                                          GAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTG
                                                                                                                                                                                                                                                                                                                                                                  CAGGCCCTACAGGGGGCACAAGGCCGAGATCATCACTGTCAGGGGATGGCGGAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                           TCAAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGCAGCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAAAAGGAGACACACCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGTGCTTCTTCTCGCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    939 TGTGTTCACACATGTAAGTACATACACATGCGCCTGCAGCACATGCTTCTGTCTCCTC
 GGCACGAGCTGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTC
                                           CCACCCTTCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGG
                                                                                     TGCTCGCTGGTCCTGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAA
                                                                                                           recreectestectercerrenesectescasaacastecaseareacesteares
                                                                                                                                                                                                                     AAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGGAAACTCATCTATCAG
                                                                                                                                                                                                                                                                                                                                                      CAGGCCCTACAGCAGCACACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTCTTCTAGCAGGGACCTGTCTCCTTTTACTTCTTACCTCCCACCTTTCCAGGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCCCATATGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCCACGGGCCTGG 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1024 GGCCCGGGCCCTGG 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1059
                                                               65
                                                                                                           125
                                                                                                                                                                                                245
                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                641
                                                                                                                                                                                                                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1115
                     'n
                                                                                     221
                                                                                                                                                     185
                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                      365
                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                425
                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                          701
                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              964
                                           161
                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                821
 101
                                                                                                                                281
                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                요
                                                                                                                                                                                             요
                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
              셤
                                          õ
                                                          8 8
                                                                                                     ద
                                                                                                                                ò
                                                                                                                                                                     ò
                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
ò
```

Genoscope - Centre National de Sequencage
2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE
Email: seqreté@genoscope.cns.fr, Web: www.genoscope.cns.fr
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime
end enriched, double-strand cDNA was digested with Not I and cloned
into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library
was normalized. Library was constructed by Life Technologies, a
division of Invitrogen. This sequence belongs to sequence cluster ALS82492
ALS82492 Homo sapiens B CELLS (RAMOS CELL LINE) COT 25-NORMALIZED Homo sapiens clone CSODL001YJ06 3-PRIME, mRNA sequence. ω. 236 296 356 416 734 476 914 854 794 674 GCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATG 536 614 /notes="1st strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized." Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (AB.6) Eutheria; Primates; Catarrhini; Hominidae; Homo.

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

Unpublished (2001)

On Feb 16, 2001 this sequence version replaced gi:31320709.

Contact: Genoscope /cell_type="B CELLS (RAMOS CELL LINE) COT 25-NORMALIZED"
/cell_line="RAMOS CELL LINE"
/clone_lib="Homo sapiens B CELLS (RAMOS CELL LINE) COT
25-NORMALIZED" CCTTCTGCCGCCTGCACATACAGTCCAGCATGACGGTGATGGARGCTCAGGAGGGCCCGC TCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAG retreaacaacereaaceracaceaaaacerrecrereacaacarecaarecaarreac TCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTG 177 TACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTGT CCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGC AGGAACTGAGGAAAGAAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGA Gaps For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CS0DL001DE03NP1&c=8673.f. Location/Qualifiers ٠. ښ tch 35.1%; Score 914.8; DB 1; Length 971; al Similarity 97.5%; Pred. No. 7e-190; 949; Conservative 9; Mismatches 12; Indels 3;

us-08-731-499-4.rst

요

ઠે

g

ઠે

ద

ઠે

g

ò 셤 ò

Š

g

g δ 셤

δ

셤

ઠ

g

ઠે

В

ઠે

```
/usd type="mRNN"
//ub xref="taxon:9666"
//clone="IMAGRE:5742295"
//tlssue type="medulla"
//lab host="DH10B"
//clone lib="MNH MGC l19"
//clone lib="MNH MGC l19"
//clone lib="MNH MGC l19"
//clone lib="MNH MGC l19"
//clone lib="MNH MGC library is oligo-dr primed and aronymous male age 27. Library is oligo-dr primed and directionally cloned (EccNV site is destroyed upon cloning). Average insert size l.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCC 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        racaceaacreaceaacaaacececeaerecrecaraacaaceaacrecacerrec 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         834 GTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCAT 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTCCAGGCCTTTCAAAAGGAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGGTGAAGCTCAGGAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGGACCTGTCTCCCTTTACTTCTTACTCCACCTTTCCAGGGCTTTCAAAAGGAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCCAGTGTCCCCCAAAGACTGGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGATAAGAGCAAGTCCAGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 ATGAGGAGTICCACGGGCIGGAIGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGAAGGCTGGGGACCTGGGGATGGGTTTCTCACACCCCCATATGTCTGGTCCCTTGGATAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
34.7%; Score 903; DB 4; L
Best Local Similarity 97.1%; Pred. No. 2.7e-187;
Matches 973; Conservative 0; Mismatches 21;
                                         organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474
                       source
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACATACACACACAGCCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCCACCCCTTA 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM554015

AGENCOURT 6546740 NIH_MGC_119 Homo saplens cDNA clone INAGE:5742295

S', mRNA Sequence.

BM554015.1 GI:18793256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGA 1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            955
                    596
                                                              554
                                                                                                        959
                                                                                                                                                  494
                                                                                                                                                                                              716
                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                      776
                                                                                                                                                                                                                                                                                                                                374
                                                                                                                                                                                                                                                                                                                                                                              836
                                                                                                                                                                                                                                                                                                                                                                                                                        314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The state of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                               AGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGG
                                                                                                                                                                                                                                                                                                               CCAGTGTCCCCCAAAAACTGGATCTGTGACTCCACAGACTCAAAAGAACTCCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                              TAGACTIGICCTTGAGGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGACTGTCCTTGAGCCAGGGTCTGTAAAACCTGACACTTTATATATGTGTTCACACTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGCTGCAGGCAGCCTYCCAGGCAATATGTATATGAGAAGGCCCAGGGCCTTGGCAGTGA
                                                              AGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGG
                                                                                                      AGCACAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGG
                                                                                                                                                                                              CCAGTGCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - AGGCTGAAGCACCAGGGAAAATATGTGCTTCTTCTCCCCTACCTCCTTTCCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGTGTGCCCCC 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST
                                                            613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1136
                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                  433
                                                                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73
                                                                                                      597
                                                                                                                                                                                              657
                                                                                                                                                                                                                                          493
                                                                                                                                                                                                                                                                                    717
                                                                                                                                                                                                                                                                                                                                                                            777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
BM554015
LOCUS
DBFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
```

S.

9

293

413

533

593

540

g ò 8 ઠે

ò

g

à

g

```
BX383031 972 bp mRNA linear EST 27-APR-2004 BX383031 Homo sapiens T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED Homo sapiens cDNA clone CSODJ004YF19 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCTCAGGCTGGTGCTGGATCCTTCC----TAGGGGATGGGGGAAGCCCTGGCAGG 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGCAGCACATGCTTCTGTCTCCTCCTCCACCCCTTTAGCTGCTGTTGCCTCCC 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                                                                                                                                                             180
                                                                                                                                                                                                                                            372
                                                                                                                                                                                                                                                                                                                                        432
                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                    492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 852
  9
                                                                                                                                                                                                                                         GCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 AGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTTCCAGGAGTGGCCAGAACAACTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTACCTCCCCCCTTTCCAGGCTTTCAAAAGAACAGACCAGTGTCCCCCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGGGTTTCTCCACACCCCATATGTCTCTGTTCCTTGGATAGGGTGAGGCTGAAGCACCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAA
                                                                                                                                                                           181 GCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                     CTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGATGACGAGTTCCACGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGGAGCACAAGGCCGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCACTGTCAGCGATGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTEGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTGGATCTGTGACTCCACCAGACTCCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGTCTGTAAACCTGACA-CTTTATATGTGTTCACACATGTAAGTACATACACATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACAACCGAATGTGGA
                                                    AGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGGGTTTCTCACACCCCATATGTCTCTCTCTTGGATAGGGTGAGGCTGAAGCACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1087 CAGCCTTCCAGGCAATA 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCTTTCAAGCAAAA 976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          972 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  096
                                                    193
                                                                                                                                                253
                                                                                                                                                                                                                                            313
                                                                                                                                                                                                                                                                                                                                                                                                                                         433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1032
                                                                                                   61
                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BX383031/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
                                                                                                                                                                                                                                                                                      윱
                                                                                                                                                                                                                                                                                                                                                                             쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                              셤
                                                                                                                                             ઠે
                                                                                                                                                                                   ద
                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CA487570 982 bp mRNA linear EST 14-NOV-2002
AGENCOURT 10809280 MAPCL Homo sapiens CDNA clone IMAGE:6719062 5',
mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dome_note_minate_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_normal_norma
                                                                                                                                                                                                                                                                     TTTAGCTGCTGTTGCCTCCCTT--CTCAGGCTGGTGCTGGATCCTTCC---TAGGGGATG 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                         TAAGTACATACACACATGCGCCTGCAGCACATGCTTCTGTC-TCCTCCTCCTCCCACCCC 1011
                                                                          952
                                                                                                                         840
                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Figure 17 (Bases) Los 982)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
National Institutes of Health, Mammalian Gene Collection (MGC)
Uppublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapba-r@mail.nih.gov
Tissue Procurement: Kristi A. Egland, Ira Pastan
CDNA Library Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov
Plate: LLAM14276 row: f column: 22
High quality sequence stop: 712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
GTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCAT
                                                                                                   CCTAGACTGTCCTTGAGCCA-GGGTCTGTAAACCTGACACTTTATATGTGTTCACACATG
                                                                                                                                                                                                                     841 TAAGTACATACACACGCGTGCAGCACATGCTTTTGTNTTCCTCCTCTTCCCAACCC
                                                                                                                                                                                                                                                                                                                    TTTCGAGTGGCCGTGGCCAGTATCGCTTCCCACCCTTTACGTTACACACCGAATGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="Iwage:6719062"
/cell line="ZR-75-1, MCF7, SK-BR-3, MDA-MB-231,
hTERT-HME1, LNCaP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29; Indels
                                                                                                                                                                                                                                                                                                                                                                 1067 GGGGAAGCCCTGGCTGCAGGCAG-CCTTCCAGGCAATATGAA 1107
                                                                                                                                                                                                                                                                                                                                                                                          GGGAAACCCCTGGCTGGAAGCAGCCCTTCCAGGCAATTTGAA 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 889; DB 6; L
Pred. No. 3.2e-184;
0; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .982
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lab host="EMDH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA487570.1 GI:24947279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34.1%;
96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Sim
Matches 941;
                                                                                                                                                                                                                                                                     1012
                                                                                                                                                                         953
                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
CA487570
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRIGIN
```

```
541 GATCATNACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCT 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/tissue_type="epidermoid carcinoma, cell line"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5', mRNA sequence.
BQ672154
BQ672154.1 GI:21782988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1149 AC 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1089
                                  670
                                                                  481
                                                                                                 730
                                                                                                                                 421
                                                                                                                                                                790
                                                                                                                                                                                                                                 850
                                                                                                                                                                                                                                                                                                910
                                                                                                                                                                                                                                                                                                                                                                 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٣
                                                                                                                                                                                                                                                                                                                                                                                                                                  1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
BQ672154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                  ઠે
                                                        8 &
                                                                                                                          ద
                                                                                                                                                              ò
                                                                                                                                                                                        셤
                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                ଚ
                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (Dases 1 to 972)

2. i. (Dases 1 to 972)

3. ii. W. B., Gruber, C., Jessee, J. and Polayes, D.

4. Unpublished (2001)

5. On May 8, 2003 this sequence version replaced gi:30455104.

6. Contact: Genoscope

7. The Gaston Cremieux, CP 5706 - 91057 EvRY cedex - FRANCE

8. Email: seqre@genoscope.cns.fr. Web: www.genoscope.cns.fr

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and Ecor V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781 GAAAGGGAACCTCGAGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAG 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /notes list strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoN sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COT 10-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cell_type="T CELLS (JURKAT CELL LINE) COT 10-NORMALIZEI
/cell_line="JURKAT"
/coll_line="Homo sapiens T CELLS (JURKAT CELL LINE) COT
10-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAGCTACAGGGAAAGCTTCCTGTGRAGTCGATCCAGATTGTATTAGAGGAACTGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCTTTACCCTGTATGRACTGACTAATGGGGAAGACACACGGGGATGAGGAGGATTCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCACAAAGGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KGACACTCGGCAGAAGCAGCT-GSCSCCTGGTGCTCGCTGGTCCTGTCCTTCTGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901 GCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGGCCCGCTCTTCAACAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAGAGAATGGGGGAAACTCATCTATCAGTGGGTTTTCCAGRAGTGGCCCAGAACAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                           For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CSODJ004CC10NP1&c=8673.f. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33.8%; Score 879.2; DB 5; Length 972; ilarity 96.7%; Pred. No. 4.6e-182; Conservative 7; Mismatches 21; Indels 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ••
                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone="CS0DJ004YF19"
 GI:46622330
                                  sapiens (human)
                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 930; Conserv
 3X383031.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                               ORGANISM
                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                              COMMENT
                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E 1 (bases 1 to 918)

E 1 (bases 1 to 918)

NH-MCC http://mgc.nci.nih.gov/.

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC

CDNA Library Preparation: Rubin Laboratory

CDNA Library Preparation: Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC. Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLCM255 row. e column: 15

High quality sequence stop: 660.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCACCCCTTTAGCTGCTGTTGCCTC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTTCTCAGGCTGGTGCTGGATCCTTCCTAGGGGATGGGGGAAG-CCCTGGCTGCAGGCA 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCAGTGAGAGGTGTGGCCCC 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BQ672154 15-JUL-2002
AGENCOURT_8303589 NIH_MGC_102 Homo sapiens cDNA clone IMAGE:6274550
729
                                                          422
                                                                                                                 789
                                                                                                                                                                            362
                                                                                                                                                                                                                                   849
                                                                                                                                                                                                                                                                                           302
                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 GCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCACCCCTTTAGCTGCTGTTGCCTC 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCT
                                                                                                                                                                                                                                   GGGGATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACC
                                                                                                                                                                                                                                                                                                                                                        AGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                301 AGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCTTTCCCATCCTAAACTGTCCTTGA
                              AAAACTGGATCTGTCACTCCACCATACTCAAAAGTACTCCAGTCCTGAAGGCTGGGACCT
                                                                                                                                                                                                                                                                        GCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACACACAT
```

```
/note="Organ: duodenum, Vector: pDONR 222; Site 1: BsrG I; Site 2: BsrG I; Created from CloneMiner cDNA Library Construction kit (catalog #18249-029)"
                                                                                                                                                                                                                    EST 20-JUL-2004
                                                                                                                                                                                                                  COSBILBO 936 bp mRNA linear EST 20-JUL-2004 LICHDRIGEN MCQ 47660 Katze MmDD Macaca mulatta cDNA clone IBIUW:18554 5' similar to Bases 718 to 934 highly similar to human MGC10540 (Hs.500165), mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCCTGCACAACAGTCCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCA 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cmagness@illumigen.com
Sequenced on 2004.06.29. 724 Q20 bases. Library Preparation: Prof.
Michael Karze Lab at University of Washington DNA Sequencing:
Illumigen Biosciences Inc. For further information, see
http://www.macaque.org
                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalla, Eutherida, Primates, Cararrhini, Cercopithecidae, Cercopithecidae, Macaca.

1 (bases 1 to 936)

Katze, M.G. Thomas, M., Korth, M., Iadonato, S.P. and Magness, C.L. Large-scale Rhesus Macaque CDNA Sequencing

Unpublished (2003)
840 CACACATGCGCCTGCAGCACCACCACCCTCTTTAGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 TGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTTACGTTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTCGTCGTCCTGTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123 TGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTTACGTTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183 CGAATGTGGACACTCGGCAGAAGCAGCTGGCGCCTGGTGCTCGTCGTCCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Illumigen Biosciences Inc.
2203 Airport Way S, Suite 450, Seattle, WA 98134,
Tel: 2063780400
Fax: 2063780408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33.0%; Score 859; DB 7; I 97.0%; Pred. No. 1.2e-177; iive 0; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /dev stage="adult"
/lab_host="Electromax DH10B"
/clone_lib="Katze_MMDD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FORWARD: CCCTCACTAAAGGGAACAAAA
BACKWARD: CACTATAGGGCGAATTGGGTA
Insert Length: 936 Std Brror: 0.00
Plate: CL000407 row: F column: 12
Seg primer: CCCTCACTAAAGGGAACAAAA
POLYA-NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Macaca mulatta"
/mol_type="mRNA"
/strain="Indian"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:9544"
/clone="IBIUW:18554"
                                                                                                                                                                                                                                                                                                                                                                     Macaca mulatta (rhesus monkey)
Macaca mulatta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                          CO591180.1 GI:50412468
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: C. Magness
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                            909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .936
                                                                  GTTGCCTCCC
                                                                                                            900 GGTGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                         CO581180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S:
Matches 907
                                                                    1022 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                          RESULT 12
CO581180
                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                            쇰
                                                                                                        셤
                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_102"
//clone_lib="NIH_MGC_102"
/note="Corgan: salivary gland; Vector: pOTB7; Site_1: Xho1; Site_2: ECCRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoR1/KhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript IRT (Life Technologies). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            839
                                                                                                                                                                                                                                                                                                                                              TGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCCACCCTTCTTTACGTTACAAC 182
                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGTCCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCGGAGGCCAGAAGAATGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721 AAACACCAGGAAG-AAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTTGAGCCAGGGTCTGTAAACCTGACCCTTTATATGTGTTCACCCATGGAAGTACATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGCCTGCACAAACAGTCCAGCATGACGGTGAAGCTCAGGAGAGGCCCGCTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCACGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCCTACAGCAGGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCCCTTTACTTCTTACCTCCCACTTTCCAGGGCTTTCAAAAGGGAGACAGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rerecertraetretracereceaecrirecaggeerrireaaaggagacagacegre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACATA
                                                                                                                                                                                                                                                                                                                                                                                           TGGCGATGAGTTTCGAGTGGCCGTGCAGTATCGCTTCCCACCCTTCTTTACGTTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAATGTGGACACTCGGCAGAAGCAGCTGCCGCCTGGTGCTCGCTGGTCCTGTCCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAGGAAGAAAGGGAACCTCGAGTGGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGGAGGCCAGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCGAGATCATCACCAGCGATGCCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                         2;
                                                                                                                                                                                                                                                          Query Match 33.3%; Score 868; DB 5; Length 918; Best Local Similarity 98.5%; Pred. No. 1.3e-179; Matches 896; Conservative 0; Mismatches 12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         963
                                                                                                                                                                                                                                                                                                                                                                                                                                     183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      903
                                                                                                                                                                                                                                                                                                                                                 123
                                                                                                                                                                                                                                                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                    ORIGIN
```

g

ò g à

셤

Š

8

à a ద ઠે g

ò

ద

ò

g

ò q ò g g

ò

셤

ઠે

셤 ò

ò

ω .,

182

61

242

121

g &´

þe

us-08-731-499-4.rst

g

ઠે

ብ *ት*

쉽 ઠે ద ઠે g ò g ઠે 셤

```
TITACGITACAACCGAATGIGGACACTCGGCAGAAGCAGCIGGCCGCCTGGTGCTCGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 TGGCCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGGAAGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGGCTCGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGTCCTTCTGCCGCCTGCAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCCGCTTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICCIGATCATGTGGCGGGGGGGAAGAATGGGGGAAACTCATCTATCAGTGGGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCCTGATCATCTGGGGGGGGGCCAGAAGAATGGGGGGAAACTCATCTATCAGTGGGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCTACTACGATGGCGATGAGTTTCGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCAGGAGGACCAAAGGCCGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGCAGGGACCTGTCTCCTTTACTTCTTACCTCCCACCTTTCCAGGCTTTCAAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTATTAGAGGAACTGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAGCAGGGACCTGTCCCCTTTACTTCCTTCCCACCTTTCCAGGGCTTTCAAAAGGA
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.AG.B. Consortium (LLNL)
as Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can found through the I.M.A.G.B. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM12776 rows
High quality sequence stop: 650.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                          32.8%; Score 854.6; DB 5;
llarity 97.8%; Pred. No. 1.2e-176;
Conservative 0; Mismatches 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 919; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Si
Matches 919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1049 bp mRNA linear EST 12-MAR-2002
AGNOCOURT_6715596 NIH_MGC_120 Homo sapiens cDNA clone IMAGE:5748508
EM919274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACACATGCGCCTGCAGCACATGCTTCTGTCTCCTCCTCCTCCACCCCTTTAGCTGCTG 1022
                                   362
                                                                   241
                                                                                                 422
                                                                                                                               301
                                                                                                                                                                 482
                                                                                                                                                                                               361
                                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                              602
                                                                                                                                                                                                                                                                                                                TCCATGGGCTGGATGAGGCCACTCTACTGCGGGCTCTGCAGGACTACAGCAGGAACAAA 481
                                                                                                                                                                                                                                                                                                                                                              662
                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACATA 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       898
   GCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1049)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                    ACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAAC
                                                                                                                    TGAGGAAGAAGGGAACCTCGAGTTGGATAAGAGCAAGTCTAGCTTCCTGATCATGT
                                                                                                                                                              GGCGGAGGCCAGAAGATGGGGGAAACTCATCTATCAGTGGGTTTCCAGGAGTGGCCAGA
                                                                                                                                                                                  ACAACTCCGTCTTTACCGTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                             AGGCCGAGATCATCACCGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCAAAAGGGCTCCAGTCCTGAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCACCAGGGAGGAAAGATGTGCTTCTTGTTGCCCTACCTTT-CCATCCTAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTTGAGCCAGGGTCTAT - AACCTGATACTTTATATGTGTTCACACATGTAAGTACATA
                                                                                                   TGAGGAAGAAAGGGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGT
                                                                                                                                                                                                                                                                                            TCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                            TCCCCCAAAGACTGGATCTGTGACTCCACCAGACTCCAAAAGGACTCCAGTCCTGAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACACATGCACTTGCAGGACATGCTTCTGTCTCCTCCTCCTCCTCCTCCTTAGCTGCTG
                                   ACAACGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAAC
                                                                                                                                                                                                                                                            ACAACTCCGTCTTTACCCTGTATGAACTAACTAACGGGGAAGACACAGAGGATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGCCICCTICTCAGGCTGGTGCTGGATCCTTCC 1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM919274.1 GI:19369653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1023
                                   303
                                                                                               363
                                                                                                                               242
                                                                                                                                                                                              302
                                                                                                                                                                                                                               483
                                                                                                                                                                                                                                                              362
                                                                                                                                                                                                                                                                                                                            422
                                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                                                                                                                          542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       839
                                                                                                                                                               423
                                                                                                                                                                                                                                                                                              543
                                                                                                                                                                                                                                                                                                                                                              603
                                                                                                                                                                                                                                                                                                                                                                                                                            663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
BM919274
```

셤

ઠે

d

ઠે

Š

셤 ઠે g ò g 셤

ò

g

8

240

409 300 469 360 529 420 589 480 649 540 9 769

709

349

169

Gape

9

Length 1049; Indels 9

229

g

ò 요 ઠે g

ò

셤

ð 셤

ð

```
BM555365

990 bp mRNA linear EST 20-FEB-2002
AGENCOURT 6541180 NIH_MGC_88 Homo sapiens cDNA clone IMAGE:5550385
5', mRNA sequence.
BM555365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGCAGCACATGCTTCTGTCTCCTCCTCCCACCCCTTTAGCTGCTGTTGCCTCCT 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      839
                                                                                                                                                     240
                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            972
   254
                               120
                                                                             374
                                                                                                                                                                                  434
                                                                                                                                                                                                  241 GGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAG 300
                                                                                                                                                                                                                                            494
                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                 614
                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                          674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                         CTGGGCAGAAGCAGCTGGCCTGGTGCTCGCTGGTCCTGTCCTTCTGCCGCCTGCACA
                                                                                                                                        181 TACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                TACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAG
                                                                                                                                                                                  GGAACCTCGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGCCGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                       ATGAAGCCACTCTACTGCGGGCCTCTGCAGGCCCTACAGGAGCACAAGGCCCAGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      855 GAAAAIAIGIGCITCTTCTCGCCCTACCTCC-TITCCCAICCTAGACTGTCCTTGAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            914 GGGTCTGTAAACCTGACACTTTATATGTGTTCACACAT-GTAAGTACATACACATGCG
                                                              AACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCCCCTCTTCAACAACGTCAAGC
                                                                                                                                                                                                                                                                                                      TTACCCTGTATGAACTGACTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                          TCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGATCTGTGACTCCACCAGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720 GAAAATAIGIGCTICTICTCGCCCTACCTCCTTTTCCCATCCTAGACTGTCCTTGAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM555365.1 GI:18795758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST.
                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                              421
                                61
                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                         495
                                                              255
                                                                                                                                                                                  375
                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                 555
                                                                                                                                                                                                                                                                                                                                                                                                                          615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1033
      195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM555365
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
                                                                                        요
                                                                                                                                                g
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                          셤
                                                            ð
                                                                                                                      Š
                                                                                                                                                                                 8
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1...925
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="INAGE:4754991"
/lab_host="BH10B (TI phage-resistant)"
/clone lib="NOI GAP Skn3"
/note="Organ: skin; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: sall; cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.5kb, Library constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                              1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                             sapiens cDNA clone IMAGE:4754991 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194
                  099
                                                829
                                                                            719
                                                                                                         889
                                                                                                                                    778
                                                                                                                                                                    949
                                                                                                                                                                                                  838
                                                                                                                                                                                                                                                            868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

    (bases 1 to 925)

                                                                                                                                                                                                                                              Email: cgapbe-remail.nih.gov
Tissue Procurement: James Cleaver, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA
Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10617 row: b column: 16
High quality sequence stop: 838.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAGTGGCCGTGGCAGTATCGCTTCCCACCCTTCTTACGTTACAACCGAAGTGTGGACA
                                                                                                                         720 TAGGGTGAGGCTGAAGC-CCAGGGAGAAATATGTGCTTCTTCTCGGCCTACCTTCTTTC
                                                                                                                                                                                                                              ATGTAAGTACATACACACATGCG-CCTGCAGCACATGCTTCT--GTCTCCTCCTCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                caagtgeccereccagtarcectreccacetrrrracetracaaccaa-rereaaca
661 AGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACA-CCCATATGTCTGTCCCTTGGA
                                                                                                         TAGGGTGAGGCTGAAGCACCAGGGAGAAATATGTGCTTCTTCTCGCCCTACCTCCTTTC
                                                                                                                                                                    CCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTTCACAC
                                                                                                                                                                                                ccrccradacrercerrangeccangerergranderecerrangement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIH-WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.4%; Score 844.8; DB 4; Length 925; 98.6%; Pred. No. 1.6e-174; ive 0; Mismatches 7; Indels 6;
                                                                                                                                                                                                                                                                                         ACCCCTTTAGCTGCT-GTTGCCTCCCTTCTCAGGCTGGTG 1045
                                                                                                                                                                                                                                                                                                         ACCCTITIAACIGCIGGITGCCTCCCTITCTCCGGCTGGGG 938
                                                                                                                                                                                                                                                                                                                                                                                              ф
                                                                                                                                                                                                                                                                                                                                                                                             925 br
602621657F1 NCI_CGAP_Skn3 Homo
mRNa enginee
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BG675348.1 GI:13906744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Simi
Matches 915;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST.
                                                                                                                                                                                                                                                                                        1001
                                                                                                                                                                                                179
                                                                                                                                                                                                                              950
                                              770
                                                                                                         830
                                                                                                                                                                    890
                                                                                                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                136
                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                               RESULT 14
BG675348
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
```

ઠ g

```
212
                                                                Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LiNL at:
http://image.llnl.gov
Plate: LiAM12262 row: h column: 02
High quality sequence stop: 685.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAAACAGTCCAGGATGACGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGTCGATCCAGATGTATTAGAGGAACTGAGGAAGAAAAAAGGAAACCTCGAGTGGTTGG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTAATGGGGAAGACACAGAGAGGTGGGGGTTCCACGGGCTGGATGAAGCCACTCTACTGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACC 752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAACGTCAAGCTACAGCGAAAGCTTCCTG 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCTCTGCAGGCCCTACAGCAGAGCACAAGGCCGAGATCATCACTGTCAGCGATGGCC 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGCGTCAAGTTCTTCTAGCAGGGACCTGTCTCCCTTTACTTCTTACCTCCCACCTTTC 692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                       /clone=IMAGE:5550385"
/tissue_type="duodenal adenocarcinoma, cell line"
/lab_host="DHIOB (phage-resistant)"
/clone lib="NHH MGC 88"
/note="Organ: small_intestine; Vector: pCMV-SPORT6;
Site 1: Not!; Site 2: Sall; Cloned unidirectionally;
oligo-dT primed. Average insert size 1.767 kb. Library
enriched for full-length clones and constructed by Life
Technologies. Note: this is a NHH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCTCTGCAGGCCCTACAGCAGGAGCCACAAGGCCGAGATCATCACCGTCAGCGATGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCTTCCCACCCTTCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arcectroccaccerretracerracaacceaareregacacrosscagaagcaecres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGCCTGGTGCTCGCTGGTCCTTCTGCCGCCTGCACAACAGTCCAGCATGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAAAGGGAACCTCGAGTGGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTATCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTAATGGGGAAGACACAGAGGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCA
  1 (bases 1 to 990)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 843.8; DB 4; Length 990;
Pred. No. 2.7e-174;
0; Mismatches 10; Indels 3
                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 32.4%;
Best Local Similarity 98.5%;
Matches 871; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                              PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
```

```
541 CAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCCAAAGACTGGATCTGTGACTCCACC 600
                                 812
                                                                 99
                                                                                                  872
                                                                                                                   TATGICTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTC 720
                                                                                                                                                                                         TCGCCCTACCTCCNTTTCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACAC 780
                                                                                                                                                                                                                                     | TITATATATGTGTTCACACATGTAAGTACATACACACAT-GCGCCTGCAGCACATGCTT--C 989
                                                                                                                                                                                                                                                                         840
                                                                                                                                                                     TCGCCCTACCTCCTTTCCCATCCTAGACTGTCCTTGAGCCAGGGTCTGTAAACCTGACAC 932
                                                                                                  TATGTCTGTCCCTTGGATAGGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTC
                                                                                                                                                                                                                                                                       TTTATATGTGTGTGCATGTAGTACATACACATGGCGCCTGCAGCACATGCTTTCT
                                                   AGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCCA
                                 AGACTCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCCCA
                                                                                                                                                                                                                                                                                                           990 TGTCTCCTCCTCCTCCCACCCCTTTAGCTGCTGTTGCCTCCCTT 1033
                                                                                                                                                                                                                                                                                                                                           884
                                                                                                                                                                                                                                                                                                                             841 GINNICCICCICCTCCACCCCTTTAGCTGCTGTTGCCTCCCT
                                                                 601
                                                                                                  813
                                                                                                                                   661
                                                                                                                                                                                                     721
                                                                                                                                                                                                                                       933
                                                                                                                                                                                                                                                                       781
                                 753
                                                                                                                                                                     873
                                 8 8 8
                                                                                                                          음 장
                                                                                                                                                                                            셤
                                                                                                                                                                                                                             ठे
                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                         ò
```

Search completed: June 29, 2005, 05:14:46 Job time : 5615.03 secs

14 Page Blank (uspto)

Run

```
PAT 18-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
AP000851 Homo sapi
282775 Human DNA
AL21958 Human DNA
AL590732 Human DNA
AL356120 Human DNA
AC066977 Homo sapi
AC020713 Homo sapi
AC030156 Homo sapi
AC10813 Homo sapi
AC10813 Homo sapi
AC10813 Homo sapi
AC10813 Homo sapi
AC022844 Homo sapi
AC01852 Homo sapi
AC01852 Homo sapi
AC011852 Homo sapi
AC011854 Homan DNA
AC13734 Homo sapi
AC011854 Homo sapi
AC013734 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 AGGGAATTTACCAGCTGAAGAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GTAAGAGGGGCAGAGATGGGGAGAGTGCTGTCCACTCTGCATCATCGCCACTTTCTGGCC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                BX679664 Human DNA
AC104049 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 AGGGAATTTACCAGCTGAAGAAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AICCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unclassified.
1 (bases 1 to 2821)
Gray,J., Collins,C., Hwang,S.-i., Godfrey,T., Kowbel,D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6; Length 2821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Romens,J.
Genes from the 20013 amplicon and their uses
Patent: US 5892010-A 6 06-APR-1999;
Location/Qualifiers
1. 2821
//organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 2821;
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2821 bp
6 from patent US 5892010.
                                                                                                                                                                AC112646
AC090156
HSJ760G15
                                                    HSDJ71H19
                                                                                                                                                                                                                                   AC100813
AC132216
                                                                                                                                                                                                                  HS84M10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AR070329.1 GI:7221217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 2821; Conservative
                  9.8 185323

9.8 105580

9.8 105580

9.8 106580

9.8 110921

9.9 114721

9.1 13260

9.7 145120

9.7 11619431

9.7 11619431

9.7 11619431

9.7 11619431

9.7 11619431

9.7 11619431

9.7 11619431

9.7 11619431

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963

9.7 1161963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
        Sequence
AR070329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AR070329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unknown
      2276.8
2076.8
2076.2
2076.2
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
2076.8
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 1
AR070329
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
      υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR070329 Sequence
BD085730 Genes fro
AL096814 Human DNA
AR173229 Homo sapi
BX537393 Homo sapi
BX6377391 Homo sapi
G30061 Human STS S
CQ491451 Sequence
CQ49733 Sequence
AL390735 Homo sapi
CR759924 Homo sapi
CR759924 Homo sapi
CR759926 Homo sapi
AC010329 Homo sapi
                                                                                                               June 28, 2005, 14:57:12 ; Search time 8104.93 Seconds (without alignments) 16865.305 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                 2821
1 ATCCTAAGACGCACAGCCTG......AGGGGTTCAAGACCAGCCTG 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                 9416466
                      GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                 4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                            nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR070329
BD08730
BD08730
BRSD1139B
HSGCAPI13
HSM805690
HSM807325
G30061
CQ491451
CQ49132
AL390735
AL390735
CC798282
CC798282
CC798282
CC798282
CC798282
CC798282
AC010329
AC010329
                                                                                                                                                                                                                                                                                                                                                                                                                                                 summaries
                                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 200000000
                                                                                                                                                                                   US-08-731-499-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99 ba: *
99 bhrg: *
99 bow: *
99 br: *
99 br: *
99 br: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148281
187607
154957
56403
164076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146530
74754
78827
109067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1506
333201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                     Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28605.8
19679.6
19679.6
19685.2
237.4
237.4
277.8
277.8
277.8
277.8
277.8
                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                    Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                    nucleic
                                                                                                                                                                                                                                                                                                                                                                Minimum DB
Maximum DB
                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                    0
::
```

υυυ

Best Local Similarity 100.0%; Pred. No. 0;
--

	HSDJ139D8 HSDJ13D8
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	RESULT 3 HSDJ139D8 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL
TCCCC 1200 TCCCC 1200 TGCTG 1260 TGCTG 1260 TGCTG 1260 TGCTG 1320 TGCTG 1320 TGCTG 1320 TGGTT 1380 TGGTT 140 TGGTT 160 TGGTT 160 TGGTT 160 TGCTT 160 TGTT 160 TGCTT 160 TGGTT 160 TGCTT 160 TGCTT 160 TGCTT 160 TGCTT 160 TGGTT 160 TGGTT 160 TGGTT 160 TGGTT 160 TGGTT 160	
1411 CAGGTTTCCAGGGTAGTAGGAGGGTCCCTGGCTCAGCTCATGCCCACTTTCCCC 1201 CAGGTTTCCAGGGTAGTAGGAGGGTCCCTGGCTCAGCTCATTCCCCC 1201 TGGTGTTGACTTCCTGGCACCCCCTGGCTCAGGTGGGGATGGGGAAGGGCTGCTGTCCCCCCTGTGCAGGGGTAGTGGGGAAGGGCTGAAGGGTTGTGTTGAAGTGGCGAACGGCTGAAGGGTTGTGAGGGGTTGAAGGGTTGTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGTGCTGAAGGGCTTGAAGGGCTTGAAGGGCTTGAAGGCCTTGAAGTGCTGAAGGGCTTGAAGGGCTTGAAGGCTTTTGAAGTGCATTTTGAAGTAGAGAAGTCCTTGAAGTGCTGAAGGGTTTAAGTCATTTTGAAGAGAATCCCTTGAAGTGAAGGGCTTGAAGGCTTTAAGTTCAATTTCAAGTTCAAGTTCAAGTTCAATTTGAAGAAAGA	1801 AGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAA

```
1423. .1682
Anote="1" copies 135 mer
CCACCCATTTCAGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCGTGCCCAC
C 373% conserved"
                                                                                                                                                                                                                                                               complement(1695. .1760)
/note="L1MEd repeat: matches 1010. .1074 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4432. .4473
/note="LlMC1 repeat: matches 6287. .6329 of consensus"
complement(4587. .4631)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1010 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             copies 13 mer CTACCCCTACTTC 56% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L(4587]. .4631)
repeat: matches 3016. .3054 of consensus"
                                                                                                                                                                                                                                                                                                        1761. .2071
/note="AluSx repeat: matches 1. .312 of consensus"
1967. .1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="2.0 copies 8 mer ATATCCTG 32% conserved" complement (6303. .6388) / hote="MIR3 repeat: matches 85. .170 of consensus" (5398. .6395
                                                                                                                                                                                        complement(1554..1692)
/note="AluJb repeat: matches 1..195 of consensus"
                                                                       'note="AluSx repeat: matches 5. .312 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="2.0 copies 6 mer TTTTCC 24% conserved" 569. .3790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (6113. .6153)
note="MIR_repeat: matches 33. .73 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        copies 8 mer TCTCACCT 29% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           copies 7 mer CTGTGCC 26% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="2.3 copies 7 mer CAGGCCA 23% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    144. .2160
note="2.4 copies 7 mer TTTTTGC 25% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2045. .2083
/note="6.5 copies 6 mer AAAAAC 60% conserved"
complement(2072. .2752)
                                                                                                                                                                                                                                                                                                                                                                             note="2.2 copies 6 mer TGGAGG 26% conserved"
2042. .2077
note="36.0 copies 1 mer A 36% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O copies 6 mer ATTTCT 24% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           378. .3389
note="2.0 copies 6 mer CCTGAA 24% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               copies 6 mer TGGGGC 28% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 copies 5 mer CCTCT 32% conserved"
89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463. .3474 notes 5 mer CTTCC 24% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   copies 5 mer GTGGA 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="2.2 copies 5 mer CCAGC 22% conserved" 5176. 5194
/note="3.8 copies 5 mer CCCAC 29% conserved" 5679. 5688
/note="2.0 copies 5 mer ATTAT 20% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6092. .6102
/note="2.2 copies 5 mer TCTCT 22% conserved"
complement(6113. .6153)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    copies 4 mer TTTA 22% conserved"
                          mer TTTG 40% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          016. .6034 - note="19.0 copies 1 mer A 38% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="L1MEd repeat: matches 318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5736. .6034
/note="AluSg repeat: matches 1.
  1237. .1273
/note="9.2 copies 4
complement(1246. .15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3048. .3059
/note="2.0 cc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          137. .3152
note="3.2 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1103. .4116
/note="2.3 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2709. .2719
'note="2.2 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1446. .3464
note="2.4 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  483. .3494
note="2.0 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             077. .4098
note="3.1 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6052. .6088
/note="2.8 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              158. .2168
'note="2.8 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .5142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="L2
       repeat_region
                                                     repeat_region
                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                  repeat region
                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                           unBure
                                                                                                                                      on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C elegans/wormpep This sequence http://www.sanger.ac.uk/Projects/C elegans/wormpep This sequence chromosome f, constructed by the sanger Centre Chromosome 6 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr6
variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Emm., EMBL: Sw., SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found at
                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.

RPI-1390B is from the library RPCI-1 constructed by the group of Pieter de Jong. For further details see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="L1MEd repeat: matches 2400. .2696 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence is the entire insert of clone RP1-139D8 The true right end of clone RP1-321B9 is at 55591 in this sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="AluJb repeat: matches 195. .288 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement(42. .197)
inote="L3 repeat: matches 1197. .1345 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (327. .425)
/note="L2 repeat: matches 3210. .3313 of consensus"
complement (525. .811)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      132. .151
/note="2.5 copies 8 mer TTTGAAGA 40% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36. 49 'note="2.0 copies 7 mer GTTAGTT 28% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;2. .72
'note="2.2 copies 5 mer CTCTG 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66. .1014
note="12.2 copies 4 mer GATA 91% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      079. 1134
note="14.0 copies 4 mer TAGA 53% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="7.8 copies 5 mer TTTTG 44% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .2 copies 5 mer TCATT 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="3.8 copies 4 mer AGTT 23% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="2.8 copies 4 mer TCAT 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  copies 4 mer AGCT 20% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="3.7 copies 3 mer CCT 22% conserved"
1236. .1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     064. .1077
note="7.0 copies 2 mer AT 28% conserved"
                                                                                                                                                                                                                                                                                                           Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                 Center code: SC
Web Bite: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .167078
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (1135. .1245)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic_DN
/db_xref="taxon:9606"
/chromosome="6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone_lib="RPCI-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /map="p12.1-21.1"
/clone="RP1-139D8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1004. .1063
/note="2.5 cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              386. .896
/note="2.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEATURES
```

		TIGGIGITAL TO THE TOTAL TO THE TOTAL	1441 GGGTCCCACAGACCAAATCAGAAATGAGAACACAAAGACTGGTAGGAGGCAGGGGGGG
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3 8 6 8 6 8 6	8686868	8 8 8 8 8 8 8
repeat_region 64626478 repeat_region follower followe	Query Match 99.5%; Score 2805.8; DB 9; Length 167078; Best Local Similarity 99.3%; Pred. No. 0; 1 Accession of the conservative or	121 AGGGAATTTACCAGCTGAAGAAAGCCTGCGGCGAGAGCTACAAACTGAGCAAGGCCAGC	Db 114596 GCACGTCCTTGGGCAAGGCCCTCCAACCTGGGGGTCCTCATGTGAGAAGGC 114655 Qy 361 TGTGGAGAAGATGTCATGAACTAACAAGGGACTCATGAGCAGTTTGTAGGAGTGAC 420 Db 114656 TGTGGAGAAGATGCATGAACTAACAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC 420 421 TAAAAGTCCTACAGGAGTTGCTGATGGAGGCCAGCACGCAGATAGAAGAATAGAACAC 480 Db 114716 TAAAAGTCCTACAGGAGTTGCTGATGAGGCCAGCACGCAGAATAGAAAGAA

```
product="guanylate cyclase-activating protein 2"
oin(AF173227.1:107. .313,AF173228.1:1395. .1544,1379. .1496,
 117055 CAGGACTTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTCAGGGGTTCAAGACCAGCCT 117114
                                                                                                                             Homo sapiens guanylate cyclase-activating protein 2 (GUCAlB) gene, exons 3 and 4 and complete cds.
API73229 U82537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .>2361)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="guanylate cyclase-activating protein 2"
/protein_id="AAD47279.1"
/db_xref="G1:5702369"
/db_xref="G1:5702369"
/translation="MGQBF$WERBAAGEIDVAELQEWYKKFVMECPSGTLFMHFFKR
FFKTTDDEXAGYVEGFRAR-PUKNGDNTIDFLEYVAALNIVJRGTLEHKLKWTFKIYD
KDGNGCIDRLELLNIVEGIYQLKKACRRELQTEQDQLLTFPEEVVDRIFLLVDENGDGQ
LSINBFVEGARRDKWVMKWLQMDMNPSSWLAQQRRKSAMF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ñ
                                                                                                                                                                                                                                                                            Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 3008)

Surguchov, A., Bronson, J.D., Baneriee, P., Knowles, J.A., Ruiz, C., Subbaraya, I., Palczewski, K. and Baehr, W.

The human GCAP1 and GCAP2 genes are arranged in a tail-to-tail Genomics 39 (3), 312-322 (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ż
                                                                                                                                                                                                                                                                                                                                                                                                                                         2 (bases 1 to 3008)
Surgudohov, A., Bronson, J.D., Banerjee, P., Knowles, J.A., Ruiz, C.,
Subbaraya, I., Palczewski, K. and Baehr, W.
Direct Submission
Submitted (17-DEC-1996) Ophthalmology, University of Utah, 75 N
Medical Dr., Salt Lake City, UT 84132, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /map="6p21"."
order(aFp71327.1:<107. .1721,AF173228.1:1. .2848,1.
/gene="GUCA18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 9; Length 3008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oin(AF173227.1:<107. .313, AF173228.1:1395.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="calcium binding protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 59.5%; Score 1679.6;
Best Local Similarity 98.4%; Pred. No. 0;
Matches 1718; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [379. .1496,2234. .>2361)
/gene="GUCA1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .3008
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2234. .>2361
/gene="GUCA1B"
/number=4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2234. .2361)
/gene="GUCA1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1379. .1496
/gene="GUCA1B"
                                                                                                                                                                                                     AF173229.1 GI:5702367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="GCAP2"
                                                                                                                                                                                                                                                 Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    number=3
                                                             117115 G 117115
                              2821 G 2821
                                                                                                                                                                                                                                                                                                                                                                                                                         9119368
                                                                                                                                                                                                                                    oŧ
                                                                                                                                                                                                   VERSION
KEYWORDS
SEGMENT
SOURCE
ORGANISM
                                                                                                                                                       DEFINITION
                                                                                                        RESULT 4
HSGCAPII3
                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
셤
                              ઠ
                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                    116035 GGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCCACCTCCAGCCTGGACGACGACGTG 116094
                                                                                                                           116215 GCCTCCTCCTCCCAAGGCATCCTCACCAGGTGGTGTCAACAGGAAAAATGGCAGCAAATA 116274
                                                                                                                                                                                                                                                                                                               CGCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTT 116334
                                                                                                                                                                                                                                                                                                                                                                              CAGCTCTGCCTGGGTGCTGCTCTGGGACCCCCTGCTGCCAACCCACCACTCCCCCAACAA 116394
                                                                                                                                                                                                                                                                                                                                                                                                                                            116155 GGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTG 116214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              116694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116815 TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT 116874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           117054
                                                                                                                                                                                                                                                                                                                                                              2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2640
                                                                                                      GGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTG 1800
                                                                                                                                                                      GGGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGGCGTTCATGGGGAGGACCCTG 1920
                                                                                                                                                                                                                                     1980
                                                                                                                                                                                                                                                                                                  2040
                                                                                                                                                                                                                                                                                                                                                                                                                            2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGACTTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTCCAGGGGTTCAAGACCAGCCT 2820
                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCTCCTCCCTAACCTTGGTTATGTCTTGGCACACACAGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITACAGGIGITATITICATAIGATAGICATATAAAATITICCITITAGACATCAATITITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTAAAAAATAATTGATTAGAAAAATATTGGCCAGGTGCAGCTCCACCTGCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTAAAAAATAATTGATTAGAAAAAATATTGGCCAGGTGCAGCAGCTCACACCTGCAATCC
                                                                                                                                                                                                                                                                                                  CGCTGCAGGCTGTGGTTTTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTT
                                                                                                                                                                                                                                                                                                                                                              TGTTGACTGGGATTGTGGGCTTGGGCTTCTAACTGCTGTGTGACCCAAGACAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTCCTCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITACAGGIGIGITATITICATATGATAGICATATAAAATITICCITITAGACATCAATITITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGTGCCCTGGG
                                            1741
                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                                                                          2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2641
                                                                                                                                                                                                                                    1921
                                                                                                                                                                                                                                                                                                                             116275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116995
              115975
                                                                                                         1801
                                                                                                                                                                                                                                                                                                1981
                                                                                                                                                                                                                                                                                                                                                              2041
                                                                                                                                                                                                                                                                                                                                                                                           116335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              116575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             116935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2761
             g &
                                                                  g
                                                                                                ð
                                                                                                                                유
                                                                                                                                                                  ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                              È
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                            ሯ
                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
```

1329

1756 1389 1815 1875 1509 1935 1995

2055 1689 2115

1636 1269 1696

```
GCTGCTCTGGGGACCCCCTGCTGCCACCCACCACTCCCCCAACAATCCTCTTTCCATC 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     resecresscringscrictracrecretereacceaagacaccacrictrecretaac 1929
                                                                                                                                                                                                                    GTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAAAA
                                                                                                                                                                                                                                                                               CCAGCTACTCAGGAGGCTGAGGCAAGAATGGCGTGAACCCCAGGGGGCCGAGCCTACA
                                                                                                                                                                                                                                                                                                                                                                   AGGCATCCTCACCAGTGTGTCAACAGGAAAATGGCAGCAAATACGCTGCAGGCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTGCTCTGGGACCCCCTGCTGCCAACCCACCACTCCCCCAACAATCCTCTTTCCATC
                                                         CCGAGGGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAA
                                                                                                                                                                          ccaectactcaecaecteaecaacaacaarecceteaacecaececeaecetaca
                                                                                                                                                                                                                                                          TCTTTCTGCCTTTGAAAQGGTCAGCTGTAACTTAAAGGGACTGTTTCAGCTCTGCCTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTGAATGTTTCTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATATCCCCCAGTATGGACCTTCCACAACTCCCCAGCCATAAGCTGAATGTTTCTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGATGGAGAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTGGTTATGTCTTGGCACCACAGTGAGCCAGGTCGGACTAGGCGAACAGTTTTGGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGGAGCTGAGTACCCTCTGGAAC
                                          CCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAA
                                                                                             GTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTC-AAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACTCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTGGCCTCCTCCTCCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                         TCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTTCAGCTCTGCCTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCTGGGCTTCTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTGTTTTTAGATGTGGAATTATTTTTTTTTATATAAACTCTTATGTGTAACCCCAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                1150
                                        1577
                                                                   1210
                                                                                            1637
                                                                                                                       1270
                                                                                                                                                 1697
                                                                                                                                                                            1330
                                                                                                                                                                                                                                1390
                                                                                                                                                                                                                                                                                   1450
                                                                                                                                                                                                                                                                                                                                          1510
                                                                                                                                                                                                                                                                                                                                                                                            1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2596
                                                                                                                                                                                                      1757
                                                                                                                                                                                                                                                          1816
                                                                                                                                                                                                                                                                                                               1876
                                                                                                                                                                                                                                                                                                                                                                   1936
                                                                                                                                                                                                                                                                                                                                                                                                                         1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2536
               8 8 8 8
                                                                                                                 8 S
                                                                                                                                                                   a
                                                                                                                                                                                              8
                                                                                                                                                                                                                          8 S
                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                            8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        · & · &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                             Š
                                                                                                                /tissue type="human retina"
/clone lib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH108; sites SfiIA + SfiIB"
/dev_stage="adult"
1. .228
/gen="DKFZp686E1183"
                                                                                                                                                                                                                             /note="guanylate cyclase-activating protein 2"
/codon start=1
/product="hypothetical protein"
/protein id="CAD97635.1"
/db_xref="dl:31873288"
/db_xref="dl:31873288"
/translation="MQOBFSWFBABAAGEIDVAELQEWYKKFVWECPSGTLFWHEFRR
FPRYTDDEEASQYVEGWFRAFDKNGDWTIDFLEXVAALMLVLRGTLEHKLKRTFKIYD
KDGNGCIDRLEELLNTWGIYQLKKACKRELQTFQGQQLLTPEEVVDRIFLLYDENGDGQ
LSLNGFVEGARRDKWVMKALQMDMNPSSWLAQQRRKSAMF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1029
    the sequencing project is available
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1517 GAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGG 1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGITICHGAGGAGTCTGGGGCCCCTCCAGGCTCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACCCCTGTGCAGGGCTGAGTGGGGAATGGGGAAGGCTGCTGGGTTTGAAGTGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIGITICAGCCGCTCCTGGGAGGACTGTGCCTTGGCTGGGTGGTTGTTGTGGGGCTCCCCACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCTGGGTGTTCTCAGTTGGAAGCAAGGCCCAACTGAGGGGTGAGGGTCCCCACAGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCAGAAATGAGAACACAAAGACTGGTAGGAGGCAGGGGTGGGAGGGTGTTGAGACTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGGTGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Geccaecrercreaacegerrrerreaaggreccercegeacaagregergargaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aridoriscadaridadaricocadoriscorioscricadoradadadadadadorisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTCAGTTACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTTCAGCCGCTCCTGGGAGGACTGTGCCTTGGCTGGGTGGTTGTGGGGCTCCCACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTGGGTGTTCTCAGTTGGAAGCAAGAGCCAACTGAGGGGTGAGGGTCCCACAGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCAGAAATGAGAACACAAAGACTGGTAGGAGGCAGGGGTGGGAGGGTGTTGAGACTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCCCTGTGCAGGGCTGAGTGGGGATGGGGAAGGGCTGCTGCGGTTTGAAGTGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                       四
                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1635.2;
Pred. No. 0;
0; Mismatches
                                                 /organism="Homo sapiens"
/organism="Homo sapiens"
/db_xref="taxon:9606"
/map="6p21.1"
/clone="DKFZp686E1183"
 information about the clone and tat http://mips.gsf.de/proj/cDNA/
Location/Qualifiers
                                                                                                                                                                                                                  /gene="DKFZp686E1183"
                                                                                                                                                                                                                                                                                                                                                                                              /gene="DKFZp686E1183"
                                                                                                                                                                                                                                                                                                                                                                  /gene="DKFZp686E1183"
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 58.0%;
Best Local Similarity 99.7%;
Matches 1659; Conservative (
                                                                                                                                                                                                                                                                                                                                                       2261.
                                                                                                                                                                                                                                                                                                                                                     polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                 polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1157
                                                                                                                                                                             gene
                                                                                                                                                                                                     CDS
                            PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

2175

1809 2235 2295

2355 1989 2415 2049 2475 2109 2535 2169 2595 2229 us-08-731-499-6.rge

```
2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2428
                                                                                                                                                                        2068
                                                                                                                                                                                                                                                                                       2128
                                                                                                                                                                                                                                                                                                                                                                                                      2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STS 05-0CT-1996
                                                                                                                                                                                                                              457
                                                                                                                                                                                                                                                                                                                                                                                                                                                               337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               157
                                                                                                                                                                                                                                                                                                                                             397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                217
636 GATGCTGAGGGGGGTTCATGGGGAGGACCCTGGCCTCCTCCTCCCCAAGGCATCCTCACC 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 407)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2309 TGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTATTGTGTTTTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156 GIGGAATTATTTTTTTTTTATAAACTCTTAIGIGTAACCCCAATATAGAAACTAAATTA
                                                                                                                                                                                                         ATGGACCTTCCACACTCCCAGCCATAAGCTGAATGTTTCTCTTTAAAGGATGGAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               396 ATGGACCTTCCACAACTCCCAGCCATAAGCTGAATGTTTCTCTTTAAAGGATGGAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTGTGGGCTGGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         336 CTTCTGTCTGTCTCTGGCAAGAATTGGGGACTGTTGACTGGGGTTGTGGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2249 GCTTCTAACTGCTGTGTGTGACCCAAGACAGCCACTTCTCCCCCTAACCTTGGTTATGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216 TGGCAGCACAGTGAGGCAGTCGGACTAGGCGAACAGTTTTTGGATTATTGTGTTTTTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2369 GTGGAATTATTTTTTTTTATATAAACTCTTATGTGTAACCCCCAATATAGAAACTAGATTA
                                                            1949 AGTGGTGTCAACAGGAAAATGGCAGCAAATACGCTGCAGGCTGTGGTGTTTTCTGCCTTT
                                                                                       576 AGTGGTGTCAACAGGAAAAATGGCAGCAAATACGCTGCAGGCTGTGGTGTTTCTGCCTTT
                                                                                                                                                                           GAAAGGGTCAGCTGTACTTAAAGGGACTGTTTCAGCTCTGCCTGGGTGCTGCTCTGGGAC
                                                                                                                                                                                                                                                                                          Initial incubation: 94 degrees C for 90 seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94 degrees C for 15 seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Richard M. Myers
Stanford Human Genome Center (SHGC)
Stanford University School of Medicine
Department of Genetics, M-344, Stanford, CA 94305, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G30061.1 GI:1593612
STS; STS sequence; primer; sequence tagged site.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G30061 407 bp DNA human STS SHGC-36091, sequence tagged site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primer A: CAAGGTAAAGCAAATGTTTTCC
Primer B: AGCACCTCTGAAAAAGCA
STS size: 104
PCR Profile:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: myers@shgc.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2489 GAAAAAGCAAACTGAAAA 2507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36 GAAAAAGCAAACTGAAAA 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Denaturation:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:1593612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Myers, R.M.
Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 4157259687
Fax: 4157259689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G30061
                                                                                                                                                                           2009
                                                                                                                                                                                                                                                                                          2069
                                                                                                                                                                                                                                                                                                                                                                                                      2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
G30061/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                      Š
                                                                                                               d
                                                                                                                                                                        8
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (27-AUG-2003) MIPS, Ingolstaedter Landstr.1, D-85764
Neuherberg, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ), Email s.wiemann@dkfz-heidelberg.de;
sequenced by AGOWA (Berlin/Germany) within the cDNA sequencing
consortium of the German Genome Project.
Plus clone (DKFZp686A2293) is available at the RZDD in Berlin.
Please contact the RZDP is available at the RZDP in Berlin.
Please contact the RZDP is available at the RZDP in Berlin.
Please contact the RZDP is available at the Clone and the sequencing project is available at http://mips.gsf.de/proj/cDNA/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .2967, Corganism="Homo sapiens"
// Organism="Homo sapiens"
// Organism="Homo sapiens"
// Corganism="Homo"
// Clone="Britzp686A2293"
// Clone="Britzp686A2293"
// Clone="Britzp686A2293"
// Clone="Ib="Rege"
// Clone="Britzp686"
// Clone="Br
                                                                                                                        HSM807325 2967 bp mRNA linear PRI 30-AUG-2003
HOMO Bapiens mRNA; CDNA DKFZp686A2293 (from clone DKFZp686A2293).
BX647181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGCTGAGGGGCGTTCATGGGGAGCCCTGGCCTCCTCCTCCCCAAGGCATCCTCACC 1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1712 GCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCCTACAGTGAGCCGAGATTGC 1771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1532 GCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGAT 1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1592 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTA 1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1652 AAAATACAAAAAATCAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCCAGCTACTCAGGAG 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              637
                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. [1 (bases I to 2967)]
Wambutt, R., Heubner, D., Mewes, H.W., Weil, B., Amid, C., Osanger, A., Pobo, G., Han, M. and Wiemann, S.
The German Human CDNA Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          996 GCCGGGCGCAGTGGCTCACGCCTGTCATCCCAGCACTTTGGGAGGCCGAGGCGGCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           876 AAAATACAAAAATCAGCCGGGTGAGGTGGGCGGCGGCCTGTAGTCCCCAGCTACTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      696 AGAAAAGAAAAGCCAGGAGTTTTGGGGGGGCAGGGGCAGCAATAATTCTATAACTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         936 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAAGGGGGAGAAACCCCGGTCTCTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               816 GCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCCTTACAGTGAGCCGAGATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u> AGAAAAGAAAAGGCAGGAGTTTTGGGGGGCAGGGGGGCAGCAATAATTCTATAACTTCCGG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2967;
   2230 TATGTTGGTATATAAGAAATAAAACTAACCTATTAAACCTGAAA 2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33.9%; Score 956.6; DB 9;
99.3%; Pred. No. 1.9e-258;
cive 0; Mismatches 4;
                                                                                                                                                                                                                                 BX647181.1 GI:34366209
                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 972; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                           Ношо варіелв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_site
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                          RESULT 6
HSM807325/c
                                                                                                                                          LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONSRIM
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
```

a

ò g ò q

ઠે

ద ઠે g

ò

a

ઠે

1036

ä

1096 1206 1156

```
1325 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1157 TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1145 TAGGAGGT-CCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1217 GCACCCCTGTGCAGGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1086 gcaccccrerecaegecreaerecegarecegaaegecrecreeerreaagreeceaa 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 30-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   977 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1036
                                   Schlegel, R., Endege, W.O. and Monahan, J.E. Genes differentially expressed in human prostate cancer and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schlegel, R., Endege, W.O. and Monahan, J.E. Genes differentially expressed in human prostate cancer and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                     1097 ATGITCIGAGGAGICIGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                            Gaps
 Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1277 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                                                                                                                                                                                                                                            ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1026 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 978
                                                                                                                                                                                                                                                        Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 11.9%; Score 337; DB 6; Length 15
Best Local Similarity 99.7%; Pred. No. 2.1e-83;
Matches 348; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent: WO 0160860-A 29199 23-AUG-2001,
Millennium Predictive Medicine, Inc. (US)
Location/Qualifiers
                                                                                    Patent: WO 0160860-A 23318 23-AUG-2001;
Millennium Predictive Medicine, Inc. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                    Query Match
11.9%; Score 337; DB 6;
Best Local Similarity 99.7%; Pred. No. 2.1e-83;
Matches 348; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1506 bp DNA
Sequence 29199 from Patent WO0160860.
CQ497332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"

    11. .1506
    /organism="Homo sapiens"
    /mol_type="unassigned DNA"
    /db_xref="taxon:9606"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CQ497332.1 GI:41462968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                              116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
CQ497332/c
                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
TITLE
                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                            FEATURES
                                                        TITLE
                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                        .
요
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAG-CTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGT 2512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2274 ACAGCCACTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGAC 2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTTATGTGTAACCCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGG 2453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCTGGGTCACTGTTACTCCTATAAGA-CAGTTTAAAGTGAGACCTGGAAAAACATTTG 2571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT 30-JAN-2004
                                                                                                                                                                                                                                                                                                         Prepared with primer pairs provided by Sandoz, derived from H40682 -- Washington University/Merck EST sequence. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTATGTGTATAACCCCCAATATAGAAACTAGATTAAAAGGGGGGGTCTCTCTGGTTGAAAGG 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167 GGAGCCTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         107 GCCCTGGGTCACTGTTACTCCTATAAGANCAGTTTAAAGTGAGNCCTGGAAAAACATTTG 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       347 ACAGCCACTTCTCCCCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2,
62 degrees C for 23 seconds 72 degrees C for 30 seconds 30 Perkin Elmer 9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTTACCTTGAATAGATAGGTTTTTATGTTGGTATATAAGAATAAA 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 407;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 13.3%; Score 374; DB 11;
Best Local Similarity 98.0%; Pred. No. 6.3e-94;
Matches 399; Conservative 0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CQ491451 1506 bp DNA Sequence 23318 from Patent WO0160860.
                                                                                                       each I uM
each 200 uM
0.05 units/ul
                                                                                                                                                                                                                                                                                                                                                            1. .407
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/map="6"
                                                                                                                                                                                                                    돌돌돌
                                                                                                                                                                                                                                                                                                                                                                                                                                                       38. .141
38. .60
complement (122. .141)
                                                                                            ğ
                                                                                                                                                                                                                   2.5
50
1
8.3
                Polymerization:
PCR Cycles:
                                                                                                                                             Tag Polymerase:
Total Vol:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CQ491451
CQ491451.1 GI:41457070
                                                      Thermal Cycler:
                                                                                                                                                                                                                                     KCl:
Tris-HCl:
pH:
                                                                                        Cemplate:
                                                                                                             Primer:
                                                                                                                            dNTPB:
                                                                                                                                                                                                                   MgC12:
                                                                         Protocol
                                                                                                                                                                                                  Buffer:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer_bind
primer_bind
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CQ491451/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
                                                                                                                                                                                                                                                                                                                                               FEATURES
```

Š 셤 Š g ò 셤 ઠે 요 ò 쉽 Š 셤 Š g ij

us-08-731-499-6.rge

ò

셤 ò g

염

ð

a ò 8

ð

```
17101 105500: Contig of 8400 bp in length 15501 105600: gap of 100 bp in length 16601 108600: contig of 3000 bp in length 8601 108700: gap of 100 bp 8701 140438: contig of 31738 bp in length 0439 140538: gap of 100 bp 1539 333201: contig of 192663 bp in length. 16cation/Qualifiers
                                                                 f 100 bp
g of 3000 bp in length
f 100 bp
g of 11100 bp in length
f 100 bp
g of 3000 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig of 3000 bp in length gap of 100 bp in length contig of 3000 bp in length gap of 100 bp in length
                                                                                                                                                                                                             100 bp
9 of 3000 bp in length
f 100 bp
9 of 3000 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of 100 bp
contig of 3000 bp in length
gap of 100 bp
contig of 3000 bp in length
gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
of 3000 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
of 3000 bp in length
                                             3000 bp in length
                                                                                                                                                                                                                                                                                                                                           bp in length
                                                                                                                                                                                                                                                                                                                                                            100 bp
of 3000 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
of 3000 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="RPCI-11.2"
1. .30000
/note="agemply_fragment:06936"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56801. .59800 // fragment:06946" // note="assembly_fragment:06946" // 59901. .62900 // note="assembly_fragment:06947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note="assembly_fragment:06943"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50601. .53600
/note="assembly_fragment:06944"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53701. .56700
/note="assembly_fragment:06945"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
of 3000 b
                      100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                      contig of
gap of 100
                                                                                                                                                                                            contig of
gap of 100
                                                                                                                                                                                                                                         contig of
gap of 100
                                                                                                                                            contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="RP11-464P14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig c
                                                                                                                                                                                                                                                                                                                                           contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                          contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                                                                                                                                              gap o<u>f</u>
                                                                                                                                                                     gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39401. .50500
                                                                                                                     39400:
50500:
50600:
                                                                      36300:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87800:
90800:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93900:
                                                                                                                                                                                            53600:
                                                                                                                                                                                                                                           56700:
56800:
                                                                                                                                                                                                                                                                                                                                                                                                              66100:
69100:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72300:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78400:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78500:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84700:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97000:
                                                                                                                                                                                                                                                                                                                                                                    63000:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75300:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75400:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84600:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105601
108601
108701
140439
140539
33101
33101
33101
332101
336201
336301
336401
336401
336401
336401
336401
336401
336401
336401
34601
34601
34601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
36601
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                 1156
                                                                                                                                                                                       1205 ATCTTCTGAGGAGTCTGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG 1146
                                                                                                                                                                                                                                              TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1216
  1325 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1266
                                                                                                                                                                                                                                                                                                                                           GCACCCCCTGTGCAGGCCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1276
                                                                                                                                                                                                                                                                                                                                                                                        1086 GCACCCCTGTGCAGGGCTGAGTGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HTG 20-JUN-2003
                                                                                                                                                                                                                                                                                           1145 TAGGAGGGT-CCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Assembly program: XGAP4; version 4.5
Sequencing vector: M13; M77815; 0% of reads
Sequencing vector: plasmid; L08752; 9% of reads
Chemistry: Dye-primer-amersham; 0% of reads
Chemistry: Dye-terminator ET-amersham; 10% of reads
Chemistry: Dye-terminator ET-amersham; 10% of reads
Chemistry: Dye-terminator ET-amersham; 10% of reads
Consensus quality: 191646 bases at least Q40
Consensus quality: 191861 bases at least Q20
Insert size: 330901; sum-of-contigs
Insert size: 192574; 7.0% error; agarose-fp
Quality coverage: 8.20x in Q20 bases; sum-of-contigs Quality
coverage: 14.33x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 333201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (19-JUN-2003) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. B-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
On Jun 20, 2003 this sequence version replaced gi:14132967.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL390735 333201 bp DNA linear HTG 20-JUN-20
Homo sapiens chromosome 1 clone RP11-464P14, 24 unordered pieces.
AL390735
                                               1097 ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as arbitrary. Gaps between the contigs are represented as This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGCATAGTCCATTTTGCAGGAGTCCCTGGGATGGTGAAGGGAATTC 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30000: contig of 30000 bp in length 30100: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center code: SC
Web Bite: http://www.sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL390735.10 GI:32131042
HTG; HTGS PHASE1; HTGS_CANCELLED.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center project name: bA464P14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30001
                                                                                                                                                                                                                                                                                                                                                                                                                                       1277
                                                                                                                                                                                                                                           1157
                                                                                                                                                                                                                                                                                                                                           1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL390735
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
```

```
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Euthberia, Primates, Catarrhini, Hominidae, Homo.

Elkaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Euthberia, Primates, Catarrhini, Hominidae, Homo.

I (Dasses 1 to 14653)

Murny D. M., Adams C., Adlo-Oduola B., All-Osman, F., Barbaria, J., Bentch, S. L., Amaratunge, H.C., Are, J. R., Banks T., Barbaria, J., Bentch, P., Burket, C., Carazoa, S. E., Maratunge, H.C., Are, J. R., Banks T., Burket, C., Burrell, K.L., Barwin, D. Buck, J., Darbaria, C., Cayle, M. D., Dathorne, S. R., David, R., David, M. D., Dathorne, S. R., David, R., Dayant, M. D., Dathorne, S. R., David, R., Dayant, M. L., Davis, C., Coyle, M. D., Dathorne, S. R., David, R., Dayant, M. L., Davis, C., Coyle, M. D., Dathorne, S. R., David, R., Dayant, M. L., Davis, C., Coyle, M. D., Dathorne, S. R., David, R., Dayant, M. L., Davis, C., Coyle, M. D., Dathorne, S. R., David, R., Dayant, M. L., Davis, C., Coyle, M. Dangar-Rocha, S. Darin, M. H., Douthwaie, K.J., Draper, H., Dhogan-Rocha, S. Darin, M. Wall, R., Garrer, T., Garza, N., Garrer, T., Garza, N., Garrer, T., Garza, N., Garrer, M., Havlak, P., Hane, S., Hamilton, K., Han, J., Harris, K., Hart, M., Havlak, P., Hane, S., Hamilton, K., Han, J., Harris, R., Hane, S., Hane, J., Harrandez, J., Harrandez, O., Huber, J., Lidl. S., Hube, J., Indiarge, M., Holloway, C., Holling, B., Homsi, F., Luna, R., Martindale, M., Martindal, A., Landry, N., Lodier, A., Lucier, R., Luna, R., Martindale, A., Matchell, T., Mosao, P., Marodel, J., Martindal, A., Matchell, T., Mosao, R., Wolse, M., Mosao, M., Ren, Y., Mutchell, T., Nobabbat, K., Wontgomery, K. T., Morgan, M., Marhingo, M., Ren, Y., Maczy, M., Thomas, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (01-DEC-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA (bases 1 to 146530)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (199 FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (08-FEB-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA (bases 1 to 146530)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (01-APR-2003) Human Genome Sequencing Center, Departmer
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houeton, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      On Dec 1, 2000 this sequence version replaced gi:11192041.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baylor Plaza, Houston,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 (bases 1 to 146530)
Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 146530)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jupublished
                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99492 GGCCGAGGCGGGTCACGAGGTCAGGAGTCGAGACCATCCTGGCTAACAC--GGTG 99549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99610 TCCCAGCTACTCCGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCCAGGGGGTGGAGCCTG 99669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99670 CAGTGAGCCGAGATTGCGCCACTGCACTCCGGCGGGCGGCGAGACTCCGTCTCAA 99729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens 12 BAC RP11-438D14 (Roswell Park Cancer Institute Human BAC Library) complete sequence. AC023158 AC023158 GI:11496286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99432 AAAATTACAAAAATTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTTGGGA 99491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTG 1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCCTA 1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1815 AAAAAAAAAAAGAAAGAAAAGAAAAGGCAGGCAGGAGTTTTGGGGGGCAGGGGGCAGCAATAAT 1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1515 AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 9.9%; Score 278.6; DB 2; Length 333201; Best Local Similarity 83.5%; Pred. No. 1.1e-66; Matches 340; Conservative 0; Mismatches 64; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99790 CCCAGCTACT-CGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCAGG 99835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1875 TCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTGG 1921
                                                                                                 72301. .75300 '-

/note="assembly_fragment:06951"

75401. .78400

/note="assembly_fragment:06952"

78501. .81500

0.671 0.4610
                                                                                                                                                                                                                                                   90901. .93900
/note="assembly_fragment:06957"
                                                                                                                                                                                                                                                                                                                                                                                                                                                94001. .97000 // hote="assembly_fragment:06958"
97101. .105500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="assembly_fragment:06962"
108701. 140438
/note=assembly_fragment:06983"
140539. 333201
                                                                            'note="assembly_fragment:06950"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment:06961"
.05601. .108600
/note="assembly_fragment:06949"
69201. .72200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="assembly_fragment:06982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             {\tt vector} side: {\tt right} "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone end:T7
          misc_feature
                                                        misc_feature
                                                                                                         misc_feature
                                                                                                                                                       misc_feature
                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
AC023158/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email
gc-help@bcm.tmc.edu
```

CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the Features listing.

ANNOTATION OF FEATURES:

STSS are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and local mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, unpublished.) for Human and Mouse sequences.

Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < 1e-34) to the EST and cDNA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.

SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage

QUALITY OF INDIVIDUAL BASES: This sequence meets stringent quality standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found

http://gc.bcm.tmc.edu:8088/quality.info/genbank.annotation.html

QUALSTAT-REPORT------

190513 3.84429e-05 0.0103405 phrap values in estimate:
Average error rate (BCM-Phrap estimate):
Fraction of Phrap values less than 40:
Number of consensus changing edits:
Number of N's in consensus: ----- Summary Statistics Contig length:

edits	actgcaagct (c) tgcctcccgg aqtaqctqqq (a) ctacaqqcac	ggcacccacc (a) ccaccaggcc acccaccacc (a) ccaggcctgg	ccaggcctgg (c) taaatttttt	cctggctaaa (t) tttttttttt	gccaccgtgc (c) cagcaaaag	tttttttga (t) ggagtctcac	tggagtgcag (t) ggcacaatct	ggcacaatct (c) ggctcactgc	acaatctcgg (c) tcactgcaac	tcttttaaac(t)tttagctgtt	ttttgtgtgg (a) aaaaaaaaa	gctcttttta(a)cctttacatg
Consensus changing edits Original+Context ttctgactaa(n)attagttaga	actgcaaget (n) tgeeteeegg aqtaqetqqq (q) etacaqqcae	ggcacccacc (n) cccccaggcc acccaccncc (c) ccaqqcctqq	ccaggcctgg (n) taaaattttt	cctggntaaa (a) tttttttttt	gccaccgtgc (n) cagcaaaag	ttttttttga (n) ggagtctcac	tggagtgcag (g) ggcacaatct	ggcacaatct (n) ggntcactgc	acaatctngg (n) tcactgcaac	tcttttaaac (n) tttagctgtt	ttttgtgtgg (n) aaaaaaaaa	gctctttta (n) cctttacatg
Position 5392	72712 72764	72780 72783	72794	72799	72938	108090	108125	108136	108139	159377	181705	181755

--- Distribution of Quality < 40 Bases 900

FEATURES SOURY FEATURES FEBE FEBE FEBE FEBE FEBE FEBE FEBE FE	ve S ve feat re peat r	Phrap Value Range Phra
os a os		
qq	 89257 GGCGTG	

```
Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               can be found at
                                                                                                                                                                                                                                                                                                                                                                          Human DNA
                                                                                                                                                                                                                                                                                                                                                           CR788282
                                                                                                                                                                                                                                                                                                                                                                                                seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Palmer, S.
                                                                                                                                                                                                                                                                                                                                                                                                               CR788282
                  1635
                                                                                       1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                      RESULT 13
CR788282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                셤
                                                                                     ઠે
                                                                                                                 셤
                                                                                                                                                           ઠે
                                                                                                                                                                                          셤
                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                            셤
                    24537 GCCCGAGGCGGGTCACGAGGTCAGGAGATCGAGAGACCATCCTGGCTAACAC--GGTG 24594
                                                                                                                                                                               CR759924 14754 bp DNA linear HTG 24-SEP-2004
Homo sapiens chromosome 6 clone DAAP-388A15, *** SEQUENCING IN
PROGRESS ***.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ï
1575 GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTG 1634
                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (23-SEP-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 18A, UK. B-mail enquiries: humquery@senger ac.uk Clone requests: clonerequesteganger. ac.uk on Sep 24, 2004 this sequence version replaced gi:51965192.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1515 AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assembly program: XGAP4; version 4.5
Chemistry: Dye-terminator; 100% of reads
Consensus quality; 74142 bases at least Q40
Consensus quality; 74380 bases at least Q30
Consensus quality; 74580 bases at least Q30
Insert size: 74754; amm-of-contigs
Insert size: 37555; 2.6% error; agarose-fp
Quality coverage: 6.02x in Q20 bases; sum-of-contigs Quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTE: This is a 'working draft' sequence. This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.8%; Score 277.8; DB 2; Length 74754;
88.9%; Pred. No. 1.6e-66;
tive 0; Mismatches 37; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 coverage: 5.69x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="APD"
1. 74754
/note="assembly_fragment:00676"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: humquery@sanger.ac.uk
------ Project Information
Center project name: bAP388A15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center code: SC
Web site: http://www.sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                 CR759924.2 GI:52673578
HTG; HTGS_PHASE2; HTGS_ACTIVEFIN.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone="DAAP-388A15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 74754)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .74754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 88.99
Matches 312; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                      89137 ATTT 89134
                                                                     1848 TTTT 1851
                                                                                                                                                                                                                                                                                                                                                                                             Wood, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                           RESULT 12
                                                                                                                                                                               CR759924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
 ઠે
                             셤
                                                                     ò
                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
```

```
During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (1:e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Em: EMBL: Sw:, SWISSPROT; Tr:, TREMBL: Wp:, WORMPEP; Information on the WORMPEP database can be found at
                                                                                                                          24655 TCCTAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCAGGAGGGGGAGCCTG 24714
                                                                                                                                                                                                                                                                                          24715 CAGTGAGCCGAGATTGCGCCACTGCACCCTGGGCGACAGCGAGACTCCGTCTCAA 24774
1754
                                                                                                                                                                                                                                           1755 CAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA 1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         78827 bp DNA linear PRI 08-OCT-2004 sequence from clone DAAP-200B17 on chromosome 6, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  http://www.sanger.ac.uk/Projects/C elegans/wormpep This sequence was generated from part of bacterial clone contigs constructed by the MHC Haplotype Consortium and collaborators. Further information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 78827)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (08-0CT-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
on oct 9, 2004 this sequence version replaced gi:53748682.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             http://www.sanger.ac.uk/HGP/Chr6/MHC
DAAP-200B17 is from a APD human bac - B Lymphoblastoid Cell Line
library VECTOR: pBeloBAC11.
Location/Qualifiers
                                                                           TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="genomic_DN/
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR788282.3 GI:54019828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
```

ORIGIN

g

a ð g

ò

g

ò

8

ઠે

셤

à

```
Homo sapiens
                                                                                                                                                                                                                                 pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sims,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
CR759926/c
                                                                                                                                                                                                                                                                                  Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above. This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a MAC.
                                                                                                                                                                                                                                                                                                                                                    51867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51988 CAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGGCGACAGCGAGACTCCGTCTCAA 52047
                                                                                                                                                                                                                                                                                                                                                                                                                                                51927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51928 TCCTAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCCAGGAGGCGGAGCCTG 51987
                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1814
                                                                                                                                                                                                            1515 AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTTGGGA 1574
                                                                                                                                                                                                                                                                                                                                                                                                  TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTA 1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRI 27-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR388382 109067 bp DNA linear PRI 27-JUL-2004
Human DNA sequence from clone DADB-23P23 on chromosome 6, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 109067)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (21-JUL-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. B-mail enquiries: hunquery@sanger.ac.uk Clone requests: clonerequest@anger.ac.uk on May 25, 2004 this sequence version replaced gi:47604289.
                                                                                                                                                                                                                                                51750 AAAAAAAAAAAAAAAAGGCGGGGGGGGGGGCTGCACCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                        GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTG
                                                                                                                                                                                                                                                                                                                                            51810 GGCCGAGGCGGGTGGTCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                1755 CAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA
                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1815 AAAAAAAAAAAAGAAAGAAAAGAAAAGGCAGGCAGTTTTGGGGGGCAGGGGC 1865
                                                                                                                  Length 78827;
                                                                                                                                                                5,
                                                                                                                                                                Indels
                                                                                                               Score 277.8; DB 9;
Pred. No. 1.7e-66;
0; Mismatches 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
/chromosome="6"
/clone="DAAP-200B17"
/clone_lib="APD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR388382.4 GI:47678787
                                                                                                                  9.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
Homo sapiens
                                                                                                                                        Best Local Similarity 88.9
Matches 312, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR388382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brown, J.
                                                                                                                                                                                                                                                                                                                                                                                                  1635
                                                                                                                                                                                                                                                                                                          1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1695
                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
CR388382/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
```

```
82206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82145 rccragcracracracscaescraasscaesasaarosceraaacccaasaassassesses
The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Bm:, SWISSPROT; Tr:, TREMB; Wp:, WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 6, constructed by the Sanger Centre Chromosome 6 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr6

DADB-23P23 is from a DNA-arts DBB human bac library VECTOR:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CR759926 148281 bp DNA linear HTG 08-OCT-2004 Homo sapiens chromosome 6 clone DAAP-269H15, *** SEQUENCING IN PROGRESS ***, 13 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (07-0CT-2004) Wellcome Trust Sanger Institute, Hinxton, Submitted (07-0CT-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 18A, UK. B-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
center.wellcome Trust Sanger Institute
Center code: SC
Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82323 AAAAAAAAAAAAAAAAGGCGGGGGGGGGGGGTGGCTCACGCTGTGAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1755 CAGTGAGCCGAGATTGCGCCACTGCACCTGGACGACGGCGGGGAGACTCCGTCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1575 GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACACGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1635 AAACCCCGTCTCTACTAAAAATACAAAAATCAGCCGGGTGAGGTGGCGGGGCGCCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1695 TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGGCCCGAGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82085 cagreadeceagarrececeacrecacrecaecreaeceacaecaaeaecrecererea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1515 AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82025 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTTGGGACAGATGTGGC 81975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9.8%; Score 277.8; DB 9; Length 109067;
88.9%; Pred. No. 1.7e-66;
iive 0; Mismatches 37; Indels 2; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="DADB-23P23"
/clone_lib="DNA-arts-BAC.1-DBB.1"
                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="genomic DN/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /chromosome="6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CR759926
CR759926.1 GI:51965193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 148281)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 88.9
Matches 312; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTG; HTGS PHASE1
```

```
Search completed: June 29, 2005, 01:06:02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Job time : 8111.93 secs
                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                 Assembly program: XGAP4; version 4.5
Chemistry: Dye-terminator; 100% of reads
Consensus quality: 144895 bases at least Q40
Consensus quality: 144892 bases at least Q30
Consensus quality: 145693 bases at least Q20
Insert size: 147081; sum-of-contigs
Insert size: 147081; sum-of-contigs
Quality coverage: 4.63x in Q20 bases; sum-of-contigs Quality
coverage: 8.94x in Q20 bases; agarose-fp
                                                                                                                                                                                                                              NOTE: This is a 'working draft' sequence. It currently consists of 13 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13050: Contig of 11260 bp in length 43050: Contig of 11260 bp in length 66753: Contig of 23703 bp in length 66853: gap of 100 bp 81357: Contig of 14504 bp in length 81457: gap of 100 bp 90546: gap of 100 bp 110259: Contig of 8989 bp in length 110259: Contig of 19713 bp in length 110359: Gontig of 19713 bp in length 110359: Gontig of 137922 bp in length 140281: Contig of 37922 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contig of 2607 bp in length gap of 100 bp in length contig of 3150 bp in length contig of 7852 bp in length gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 bp
of 11260 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig of 2111 bp in length
gap of 100 bp
contig of 4856 bp in length
gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                              contig of 2610 bp in length
gap of 100 bp
contig of 7804 bp in length
gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="APD"
1. 2610
/note="assembly fragment:00039
fragment_chain:1"
2711. 10514
/note="assembly_fragment:00186
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment:00029
fragment_chain:2"
26735. .31590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0615. .13221
note="assembly fragment:00063
iragment chain:1"
3322. .16471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment:00079".ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment:00129
fragment_chain:2"
24524. .26634
Project Information name: bAP269H15
                                       --- Summary Statistics

    148281
    organism="Homo sapiens"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="6"
/clone="DAAP-269H15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ragment chai
6572. .24423
                                                                                                                                                                                                                                                                                                                                                                                                  2610:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13221:
13321:
16471:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16571:
24423:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26634:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24523:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31590:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31690:
                 Center project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90547
110260
110360
                                                                                                                                                                                                                                                                                                                                                                                                                      2611
2711
10515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43051
66754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
```

```
129511 TCCTAGCTACTCGGGAGGCTGAGGCAGGAATGGCGTGAACCCCCAGGAGGCGGAGCCTG 129452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129451 CAGTGAĞCCGAĞATTGCGCCACTGCACTCCAGCCTGGGCGACAGGGGACTCCGTCTCAA 129392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1575 GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGAACCATCCTGGCTAACACGGGGTG 1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1635 AAACCCCGTCTCTACTAAAATACAAAATCAGCCGGGTGAGGTGGCGGCGGCGCCTGTAG 1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1695 TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTA 1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1515 AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1755 CAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1815 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCAGGAAGTTTTGGGGGGCAGGGGGC 1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 9.8%; Score 277.8; DB 2; Length 148281; Best Local Similarity 88.9%; Pred. No. 1.8e-66; Matches 312; Conservative 0; Mismatches 37; Indels 2;
/note="assembly_fragment:00102
fragment chain:3"
1691. 42950
/note="assembly_fragment:00244
fragment chain:3"
4051. 66753
/note="assembly_fragment:00685
fragment chain:4"
/note="assembly_fragment:00685
fragment chain:4"
/note="assembly_fragment:00417
fragment chain:4"
/note="assembly_fragment:00417
fragment chain:4"
/note="assembly_fragment:00519.0"
/note="assembly_fragment:00519.0"
/note="assembly_fragment:00519.0"
/note="assembly_fragment:00519.0"
/note="assembly_fragment:00519.0"
                                                                    misc_feature
                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
```

(uspło) sidz

```
version 5.1.6
- 2005 Compugen Ltd.
   GenCore
Copyright (c) 1993
```

OM nucleic - nucleic search, using sw model

June 28, 2005, 14:28:52 ; Search time 987.126 Seconds (without alignments) 16917.381 Million cell updates/sec Run on:

US-08-731-499-6 2821 1 ATCCTAAGACGCACAGCCTG......AGGGGTTCAAGACCAGCCTG 2821

Title: Perfect score:

Sequence:

Gapop 10.0 , Gapext 1.0 IDENTITY NUC Scoring table:

4390206 segs, 2959870667 residues Searched:

8780412 Total number of hits satisfying chosen parameters:

seq length: 0 seq length: 200000000 Minimum DB Maximum DB

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

geneseqn1980s:* geneseqn1990s:* geneseqn2000s:* geneseqn2001as:* geneseqn2003cs:* geneseqn2003ds:* geneseqn2001bs:* geneseqn2002as:* geneseqn2003as:* geneseqn2003bs:* geneseqn2002bs:* N Geneseq 16Dec04:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004as:* geneseqn2004bs:*

SUMMARIES

B ID Description	2 AAV09020 Aav09020 Homo sapi	5 ABV29181 Abv29181 Human pro	5 ABV23329 Human 1	4 AAI83630 Auman p	4 AAK89020 Auman c	4 AAK91534 Human dig	. Aai57791	5 AAS39621 Genomic #	6 ABS99968 Genomic D	9 ADB32581 Human nov	10 ADB93121 Human col	4 AAK66362 Human imm	4	4 AAI99076 Aai99076 Human exc	5 AAI63426 Auman kid	11 ACN44210 Acn44210 Human gen	4 AAS44507 Human LEK	12 ADQ59201 MSI-H Car	CHOCOCKE &
Query Match Length DB	2820	1506	1506	425	32152	32152	32152	32152	32152	32152	32152	36933	129042	335	335	238484	7995	54378	0001
Query Match 1	9.66	11.9	11.9	11.5	9.7	9.7	9.7	9.7	7.6	9.7	7.6	9.7	7.6	7.6	9.7	9.7	7.6	7.6	•
Score	2808.6	337	337	325.8	275	275	275	275	275	275	275	275	275	274.6	274.6	273.4	272.6	272.6	,,,
Result No.	-	0	ص ن	4	S	9	0	80	6 0	10	c 11	12	13	c 14	c 15	16	c 17	18	,

Aak72282 Human imm	Aal03110 Human rep	Continuation (4 of	Aak71676 Human imm	Aak74017 Human imm	Aak85754 Human imm	Aak78813 Human imm	Aak70270 Human imm	Aak69322 Human imm	Adc24763 Human wil	Aal03109 Human rep	Aal03111 Human rep	Adpl3274 Renal cel	Abd33553 Human can	Continuation (3 of	Continuation (3 of	Aal06868 Human rep	Aba08089 Human ova	Adl95498 Human MCM	Adc85386 Human Mcm	Ada02906 Human MCM	Adb72644 Human MCM	Adm74501 Human car	Aal07531 Human rep	Abk83563 Human cDN
AAK72282	AAL03110	ACN44014 3	AAK71676 _	AAK74017	AAK85754	AAK78813	AAK70270	AAK69322	ADC24763	AAL03109	AAL03111	ADP13274	ABD33553	ADA13411 2	ADQ59446 2	AAL06868 _	ABA08089	ADL95498	ADC85386	ADA02906	ADB72644	ADM74501	AAL07531	ABK83563
4	4	7	4	4	4	4	4	4	10	4	4	12	13	0	12	4	4	7	2	σ	10	12	4	9
3540	810	70469	009	15270	15270	51469	51469	51469	334462	816	816	101569	68495	110000	110000	31304	31304	43936	44029	44030	44030	44030	15306	57248
9.6	9.6	9.5	5.5	9.5	9.5	4.	4.6	4.	4.	9.3	9.3	9.3	2.5	9.2	9.2	6	9.5	9.5	6	6	9.5	9.5	9.1	9.1
271	270	269.2	268.6	266.8	266.8	266.4	266.4	266.4	266.4	263.6	263.6	263.6	259.8	259	259	258.6	258.6	258.6	258.6	258.6	258.6	258.6	257.4	257.2
21	22	23	24	25	56	27	28	59	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
υ	U	υ	υ							υ	U		υ					υ	υ	υ	υ	υ		

ALIGNMENTS

RESULT 1

20q13 amplicon, chromosome 20; tumour; detection; cyclic AMP; cAMP; chromosomal abnormalities; probe; gene therapy; antisense inhibition; treatment; age-related macular degeneration; retinitis pigmentation; Leber's congenital amaurosis; biosynthesis; guanino cyclase activating protein; ds. Homo sapiens 20q13 amplicon GCAP transcript. AAV09020 standard; cDNA; 2820 BP. (first entry) 21-JUL-1998 AAV09020; AAV09020

Homo sapiens.

WO9802539-A1

22-JAN-1998.

97WO-US012343. 15-JUL-1997;

96US-00680395. 96US-00731499. 97US-00785532. 15-JUL-1996; 16-OCT-1996; 17-JAN-1997;

(REGC) UNIV CALIFORNIA.

Godfrey T, Hwang S, Gray JW, Collins CC,

Rommens J;

Kowbel D,

WPI; 1998-110587/10.

chromosomal New sequences from the 20q13 amplicon - used for detecting chromosom abnormalities, particularly tumours, and for developing products for treating diseases.

Claim 1; Page 63; 91pp; English.

The sequence is that of a cDNA sequence GCAP, which was isolated from the 20q13 amplicon. It encodes a guanino cyclase activating protein which is involved in the biosynthesis of cyclic AMP. Sequences from this gene can

CC be used in the treatment of retinal degeneration. It can be used as a corprobe for the detection of chromosomal abnormalities at 20q13. It and cother sequences isolated from the 20q13 amplicon are consistently can amplified in primary tumours. These sequences are useful as probes or as probe targets for monitoring the relative copy number of corresponding corporates from a biological sample such as tumour cells. The sequences can also be used in therapputic applications for modulating the expression of the endogenous gene or the activity of the gene product. Examples of therapputic approaches include antisense inhibition of gene expression, gene therapy, and monoclonal antibodies that specifically bind the gene products. The products can also be used in the treatment of other diseases, e.g. age-related macular degeneration, Leber's congenital maurosis and retinitis pigmentation. reatment of congenital

120 120 180 180 240 240 300 300 360 360 420 420 480 480 540 540 600 600 999 99 720 720 780 780 GCAAAGAAAGCCCCTTAAAAGGTGGCAGGAGACTCCTGGAGATTCAGACACCTGACAAGCC 840 9 9 GTAAGAGGGGCAGAGATGGGGGAGAGTGCTGTCTCTGCATCATCACCACTTTCTGGCC AGCCTCAGGGCTATGTGGGGGAGAGAGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC TCTCAGCTCCACCCACCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC recreacaccaseascressacacacacacarerrecressesargaarasaargaarg TITGGAGTCAGGCAGGCAGGAGTGATATTGAGCTTCTCGTCCTAGTCTCAAITTCCTCATC TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA ATCCTAAGACGCACGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGG Cachdedengaadengeaderricadedrerecentaarecaderearitricringee AGGGAATTTACCAGCTGAAGAAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC AGGGAATTTACCAGCTGAAGAAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC TGCTCACCCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG GTAAGAGGGGCAGAGATGGGGAGAGTGCTGTCCACTCTGCATCGCCACTTTCTGGCC GCACGTCCTTGGGCCAAGGCCCTCCACCTTCCAACCCTGGGGTCCTCATCTGTGAGAAGGC TGTGGAGAAGATGTCATGAACTAACAAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC reregagaagargreargaacraagaagaacreargagcacgrerreraggagreac TAAAAGTCCTACAGGAGTTGCTGATGGAGGCCAGGCACGCAGAATAGAAAAAACAATAGGAAC TGGAAAATGGGGATAATAATAGTGGTTGAGAAGGAATGAATAGGATAATGTGTTTAAGAGC AGGCATAGGGTAGACCTCCATTCAGGCTGCTTGGGCTTTCCTCCCTGTAGCCCCAAAGCCC AGGCATAGGGTAGACCTCCATTCAGGCTGCTTGGGCTTTCCTCCCCTGTAGCCCCAAAGCCC AGCCTCAGGGCTATGTGGGGAGAGAGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGGT TTTGGAGTCAGGCAGGGAGTGATATATTGAGCTTCTCGTCCTAGTCTCAATTTCCTCATC Gaps Score 2808.6; DB 2; Length 2820; Pred. No. 0; 1; Mismatches 0; Indels 1; 1; Sequence 2820 BP; 703 A; 666 C; 804 G; 646 T; 0 U; 1 Other; 99.64; Best Local Similarity 99.9 Matches 2819; Conservative -121 781 121 541 661 61 721 Query Match 61 181 181 241 241 301 301 361 361 421 421 481 481 541 601 601 661 721

셤 δ g

ઠ

a

ò

요

ò

셤 ò g ઠ g ઠે 셤 8 g δ ద

ò

g

õ

ò 셤

요

ઠ

ପ୍ଧ	
ò	1 GCAAGCTTGAGGTCTGAGACTGCAGGATAGTTGGCATAAGACGTGTAGGCGCATCCTGGG 90
QQ	H
& g	901 AGGAGGTCTCTCCTCCTGCCCCCAGACCCAGGTCTCCCCTTCTTCTACATGACCACCTC 960
λ	61 TCCTCCCCTTGCTCAGGCCAGCTGTCTCTGAACGAGTTTGAAGGTGCCCGTCGGGA 10
qq	61 rccrccccrrdcrcaggccrgcrcfcrcagacgarfffrargaaggrgcccgrc
<i>∂</i> €	1021 CAAGTGGGTGATGAAGATGCAGATGGACATGAATCCCAGCAGCTGGCTCGCTC
ìò	81 GAGACGGAAAAGTGCCATGTTCTGAGGAGTCTGGGGGCCCCTCCACGACTCCAGGCTCACC 114
qu	4
ð í	41 CAGGITTCCAGGGTAGTAGGAGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCC 120
8 8	ます。 「たがらな」といっておないないでは、そのできないでしているでしているでしておいないできないできないできないできない。 ことのできない まった () () () () () () () () () (
호 옵	
λ	TTGAAGTGGCCAACAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGG 132
qq	61 GGTTTGAAGTGGCCAACAGGGCATAGTCCATTTTTGGAGGAGTCCCTGGGATGGTGAAGGG 132
λ	21 AAIICAGITACITITCCIGITCAGCCGCTCCTGGGAGGACTGTGCCTTGGCTGGGTGGTT 138
Dp	rcaditacititicciciticaccecticressassastrefectitsecressissis 138
λō	
Q O	81 GTGGGGCTCCCACAGTTTCTGGGTGTTCGAAGCAAGCAAG
ò	GGGTCCCACAGACCAAATCAGAAATGAGAACACAAAGACTGGTAGGAGGCAGGGGTGGGA 150
qq	41 degreceaeagaceaareagaareagaacaeaagaergeraggaggeggggga 150
ò	GGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATC 15
ΟP	01 GGGTGTTGAGACTGAAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATC 156
දු දු	1561 COAGCACTTTGGGAGGCGGGGGGGGGGATCACGAGGTCAGGAGATCGAGACATCCTG 1620
ò	21 GCTAACACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATCAGCCGGGTGAGGTG 16
· qa	21 GCTAACACGGGGTGAAACCCCGTCTCTACTAAAATACAAAAATCAGCCGGGTGAAGGTG 168
ò	CGGCCCCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAAGGCGCGTGAACCCCA 174
QQ	1681 GCGGGCCCTGTAGTCCCCACTACTCAGGAGGCTCAAGGAAAGAGAATGGCGTGAACCCCA 1740
ò	CCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTG 180
qu	11 GGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTG 180
ò	rrreceeceag 18
ф	cAG 186
Š	1861 GGGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGCCTG 1920

(first entry)

```
Human; prostate cancer; cytostatic; carcinogen; pharmacodyanamic marker; pharmacogenomic marker; gene; 88.
                                                                                                                                                                                                                                                                                                                       Novel isolated nucleic acid molecule associated with cancerous state prostate cells and correlating with presence of prostate cancer, usef for detecting presence of prostate cancer.
                       Human prostate expression marker cDNA 29172
                                                                                                                                                                                                                                                       (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                      17-FEB-2000; 2000US-0183319P.
16-MAR-2000; 2000US-01896G2P.
25-MAY-2000; 2000US-0207454P.
09-UTN-2000; 2000US-021314P.
18-JUL-2000; 2000US-0219007P.
                                                                                                                                                   20-FEB-2001; 2001WO-US005171
                                                                                                                                                                                                                                13-DEC-2000; 2000US-0255281P
                                                                                                                                                                                                                                                                                                    WPI; 2001-662795/76.
                                                                                                     WO200160860-A2
                                                                                Homo sapiens
 16-SEP-2002
                                                                                                                                                                                                                                                                              Schlegel R,
                                                                                                                           23-AUG-2001
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                       2280
                                                                                                                                                                                                                                                                                                                                                                                             2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2699
                                                                                                                                       2100
                                                                                                                                                             21.60
                                                                                                                                                                                    2160
                                                                                                                                                                                                                               2220
                                                                                                                                                                                                                                                                                                                         2340
                                                                                                                                                                                                                                                                                                                                                 2400
                                                                                                                                                                                                                                                                                                                                                                      2400
                                                                                                                                                                                                                                                                                                                                                                                                                   2459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2819
                                   GCCTCCTCCTCCTCCAAGGCATCCTCACCAGGGGGTGTCTCAACAGGAAAAATGGCAGCAAATA 1980
 GGGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTG 1920
                                                                                 GCTGCAGGCTGTGCTTTTCTGCCTTTTGAAAGGTCAGCTGTACTTAAAGGGACTGTTT
                                                                                                                               AATGTTTCTCTTTAAAGGATGGAGAAAACTTCTGTCTCTGTCTCTGGCAAGAATTGGGGGAC
                                                                                                                                                                                                                                                                                                                                                            GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAA-GGGAGCTG
                                                                     CGCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTT
                                                                                                                CAGCTCTGCCTGGTGCTCTGGGACCCCCTGCTGCCAACCCACCACCACCAACAA
                                                                                                                                                             TCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTG
                                                                                                                                                                                   recreterrecarecaratececagnangaacerrecacaacreecagecaraagere
                                                                                                                                                                                                         TGTTGACTGGGATTGTGGGCTGGGCTTGGCTTCTAACTGCTGTGTGACCCAAGACAGCA
                                                                                                                                                                                                                                                                                                                           CTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                                 GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGTGCCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAATAGATATTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITACAGGIGIGITATITCATAIGATAGTCATATAAAATITCCTITAGACATCAATITTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITACAGGIGIGITATITICATATGATAGTCATATAAAATTICCTTTAGACATCAATTITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2700 GGTAAAAATAATTGATTAGAAAATATTGGCCAGGTGCAGCAGCTCACACCTGCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2760 CAGGACTTTGGGAGGCGGGGGGGGTGACACCTGAGGTCAGGGGTTCAAGACCAGCCT
                                                                                                                                                                                                                                                                                                   CTTCTCCTCCTTAACCTTGGTTATGTCTTTGGCACACAGTGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTAAAAAATAATTGATTAGAAAAATATTGGCCAGGTGCAGCAGCTCACCTGCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGACTTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTCAGGGGTTCAAGACCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
ABV29181/c
ID ABV29181 standard; cDNA; 1506 BP.
XX
AC ABV29181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ·O
                                                                  1981
                                                                                         1981
                                                                                                                2041
                                                                                                                                     2041
                                                                                                                                                            2101
                                                                                                                                                                                   2101
                                                                                                                                                                                                                               2161
                                                                                                                                                                                                                                                                            2221
                                                                                                                                                                                                                                                                                                                         2281
                                                                                                                                                                                                                                                                                                                                                 2341
                                                                                                                                                                                                                                                                                                                                                                      2341
                                                                                                                                                                                                                                                                                                                                                                                             2401
                                                                                                                                                                                                                                                                                                                                                                                                                  2401
                                                                                                                                                                                                                                                                                                                                                                                                                                         2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2821
 1861
                                            1921
                                                                                                                                                                                                         2161
                                                                                                                                                                                                                                                      2221
                                                                                                                                                                                                                                                                                                   2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2820
                       1921
g
                                      ል ይ
                                                                                      셤
                                                                                                               ò
                                                                                                                                  d
                                                                                                                                                        ઠે
                                                                                                                                                                               a
                                                                                                                                                                                                        È
                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                    ð
                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

tate of useful

Monahan JE;

Endege WO,

```
1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1276
                                               The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV0010-ABV6213) of the specification or its complement. (I) is useful for: (a) assessing whether patient is afflicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a therapy for inhibit ing prostate cancer in a patient; (d) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient; (f) assessing the prostate call carcinogenic potential of a compound; (f) assessing the prostate cancer in a patient; (f) assessing the prostate cancer in a patient; (i) assessing the prostate cancer in a patient; (i) assessing the aggressiveness or indolence of prostate cancer in a patient; (i) is also useful as a pharmacodyanamic or pharmacogenomic marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAGGAGGT-CCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCTGGTGTTTGACTTTCCTG 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACCCCCTGTGCAGGGCTGAGTGGGGGAATGGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCACCCCCTGTGCAGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence 1506 BP; 348 A; 444 C; 421 G; 290 T; 0 U; 3 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11.9%; Score 337; DB 5; L 99.7%; Pred. No. 1.4e-76; ive 0; Mismatches 0;
Claim 1; Page 6211-6212; 11750pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
wes 348; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

g

ò

```
1086 GCACCCCCTGTGCAGGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to human polynucleotides (AAI79941-AAI93841) and the encoded proteins (AA000010-AA013910) that exhibit activity elating to cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, immunomodulatory activities activity, tissue growth factor activity, immunomodulatory activity and activity, insue growth factor activity, immunomodulatory and/or treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isolated nucleic acids and polypeptides, useful for preventing diagnosing and treating e.g. leukemia, inflammation and immune disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopolesis; tissue growth factor; immunondulatory; cancer; leukaenia; nervous system disorders; arthritis; inflammation; ss.
                                                                           TAGGAGGGTCCCCTGGCTCAGCCTCATGCCCCACTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                                        1145 TAGGAGGGT-CCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                                                                                        GCACCCCTGTGCAGGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                        CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 325.8; DB 4; Length 425;
Pred. No. 6.3e-74;
0; Mismatches 58; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 3690; 1399pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                        1026 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 425 BP; 125 A; 111 C; 102 G; 86 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human polynucleotide SEQ ID NO 3690.
                                                                                                                                                                                                                                                                                                                                                                                                                                              ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                              AA183630 standard; cDNA; 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-FEB-2001; 2001WO-US004927.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-FEB-2000; 2000US-00515126.
18-MAY-2000; 2000US-00577409.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tang YT, Liu C, Drmanac RT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11.5%;
86.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 86.1
Matches 360; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-514838/56.
P-PSDB; AAO03699.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200164835-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-SEP-2001.
                           1205
                                                                                                                                                                                                                                                                        1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA183630;
                                                                           1157
                                                                                                                                                                        1217
                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                       AA183630
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                        셤
                                                                                                                                                                           8
                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV0010-ABV62213) of the specification or its complement. (I) is useful for: (a) assessing whether a patient is afflicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a therapy for inhibit prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (f) assessing the prostate calc cancer in a patient; (f) assessing the prostate calc cancer in a patient; (f) assessing the prostate cancer has metastasized in a patient; (g) determining whether prostate cancer has metastasized in a patient; (h) assessing the aggressiveness or indolence of prostate cancer in a patient; (l) is also useful as a pharmacodyanamic or pharmacogenomic marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1325 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1097 ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG 1156
                                                                                                                                                                                                                                                                                                                                                                  Human, prostate cancer, cytostatic; carcinogen, pharmacodyanamic marker, pharmacogenomic marker; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel isolated nucleic acid molecule associated with cancerous state of prostate cells and correlating with presence of prostate cancer, useful for detecting presence of prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   977 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
       CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                  1026 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1506 BP; 348 A; 444 C; 421 G; 290 T; 0 U; 3 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11.9%; Score 337; DB 5;
99.7%; Pred. No. 1.4e-76;
cive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                        Human prostate expression marker cDNA 23320.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 4227; 11750pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monahan JE;
                                                                                                                                                                        ABV23329 standard; cDNA; 1506 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; 2000US-0183319P.
; 2000US-0189862P.
; 2000US-0207454P.
; 2000US-0211314P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-DEC-2000; 2000US-0255281P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-FEB-2001; 2001WO-US005171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0219007P
                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Schlegel R, Endege WO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-662795/76.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200160860-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Simi
nes 348;
                                                                                                                                                                                                                                                                        16-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2001
  1277
                                                                                                                                                                                                                        ABV23329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loca
Matches
                                                                                                                           RESULT 3
ABV23329/c
```

ö

셤 ò q ò

셤

g

ઠે

8 8 8

a

셤

ઠે

g

Š

g

ઠે

```
2000US-0236327P.
2000US-0236367P.
2000US-0236368P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0236369P.
2000US-0236370P.
2000US-0237037P.
2000US-0237039P.
2000US-0237049P.
2000US-023935P.
2000US-0240960P.
2000US-0240960P.
2000US-0241785P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                    000US-0230438P
                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0231413P
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0232080P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            000US-0232401P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0234274P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0234998P.
2000US-0235484P.
                                                                                                                                                                                                                                                                                                                      2000US-0229513P
                                                                                                                                                                                                                                                                                                                                                                                   2000US-0231243P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0246478P
2000US-0246523P
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-0CT-2000;
02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
13-0CT-2000;
13-0CT-2000;
13-0CT-2000;
20-0CT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-SEP-2000;
   1861
                                                                                                                                           GGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTGG 1921
                                                                                                                                                                                                                                                                       GCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTTC 2041
                                                                                                                                                                                                                                                                                                                                   307
                                                                                             367
                                              67
                                                                                                                                                                                                                                                                                                                                                                                                  CCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCT 2159
                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTTTTTCATCCCATATCCCCAAGAAGGGACCTTCCACAACTCCCAGCCATAAGCT 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; digestive system antigen; gene therapy; cancer; appendicitis; ulcerative colitis; infection; Hirschsprung's disease; chronic colitis; digestive system disorder; Meckel's diverticulum; ds.
                CCTGCAGGCTGGGGTTTTTTTTGCCTTTAAAAGGGCCACCTGTACTAAAAGGAACGGTTTC
                                                                                                                                                                                                                                                                                                                                                         Human digestive system antigen genomic sequence SEQ ID NO: 2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                떮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0186628P
2000US-0184664P
2000US-0186350P
2000US-0190076P
2000US-0190076P
2000US-0198123P
2000US-0205515P
200US-020515P
200US-021886P
200US-0215135P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0216880P.
2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAK89020 standard; DNA; 32152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0224518P.
2000US-0224519P.
2000US-0225213P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JAN-2001; 2001WO-US001324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200155314-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24 - FEB - 2000;
02 - PAR - 2000;
17 - MAR - 2000;
18 - APR - 2000;
19 - MAY - 2000;
07 - JUN - 2000;
07 - JUL - 2000;
07 - JUL - 2000;
07 - JUL - 2000;
11 - JUL - 2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-AUG-2001
                  1742
                                                                             1802
                                                                                                                                           1862
                                                                                                                                                                                                        1922
                                                                                                                                                                                                                                                                       1982
                                                                                                                                                                                                                                                                                                                                   2042
                                                                                                                                                                                                                                                                                                                                                                                                  2102
                                              8
                                                                                                            68
                                                                                                                                                                         128
                                                                                                                                                                                                                                       188
                                                                                                                                                                                                                                                                                                    248
                                                                                                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAK89020;
                                                                                                                                                                                                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARK89020

AAK89020

AAK890
```

14166 1785

1725

```
The present invention provides the protein and coding sequences of a number of human digestive system antigens. These can be used in the diagnosis, treatment and prevention of digestive system disorders, including cancer, Meckel's diverticulum, bacterial or parasitic infections, appendicitis, Hischsprung's disease, chronic colitis or ulcerative colitis. The present sequence is a genomic DNA fragment encoding a digestive system antigen of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polynucleotides encoding digestive system antigens, useful for diagnosing, treating, preventing and/or prognozing disorders of digestive system, particularly cancer and cancer metastases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 32152 BP; 9229 A; 7256 C; 7335 G; 8332 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9.7%; Score 275; DB 4; Length 32152;
88.1%; Pred. No. 7.5e-60;
.ive 0; Mismatches 40; Indels 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; SEQ ID NO 2596; 986pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ruben SM;
                                                                                                                                                                                                                                                                                                                                                         2000US-0250160P.
2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
          2000US-0246525P.
2000US-0246526P.
2000US-0246528P.
2000US-0246528P.
2000US-024661P.
2000US-024661P.
2000US-024661P.
2000US-024661P.
2000US-024661P.
2000US-024920P.
2000US-024921P.
                                                                                                                                                                                                                                                                                                                       2000US-0249297P.
2000US-0249299P.
2000US-0249300P.
                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0256719P
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0251868P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-DEC-2000; 2000US-0254097P
05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 88.1
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-502630/55.
                                                                                                                     17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
         08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                  17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                   17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                       17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosen
```

```
Human, digestive system antigen, gene therapy; cancer, appendicitis; ulcerative colitis; infection; Hirschsprung's disease; chronic colitis; digestive system disorder; Meckel's diverticulum; ds.
CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG
                                                                                                1606 ATCGAGACCATCCTGGCTAACACGGGTGAAACCCCGTCTCTACTAAAAATTACAAAAAT
                                                                                     1666 CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                ATGGCGTGAACCCCAGGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA
                                                                                                                                                                                    Human digestive system antigen genomic sequence SEQ ID NO: 5110
                                                                                                                                                                                                                                          AAK91534/c
ID AAK91534 standard; DNA; 32152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0216647P.
2000US-0216880P.
2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0205515P.
2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0225266P.
2000US-0225267P.
2000US-0225268P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0189874P.
2000US-0190076P.
2000US-0198123P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0224518P.
2000US-0224519P.
2000US-0225213P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0225757P.
2000US-0225758P.
2000US-0225759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0225214P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0225270P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             000US-0225447P
                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JAN-2001; 2001WO-US001324
                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                         WO200155314-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-FEB-2000; 2
02-MAR-2000; 2
15-MAR-2000; 2
16-APR-2000; 2
19-MAY-2000; 2
19-MAY-2000; 2
28-JUN-2000; 2
30-JUN-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                               05-NOV-2001
                                                                                                                               1726
                                                                                                                                                                          1786 (
                                                                                                                                                                                                                                                                          AAK91534;
   1546
                                                                13989
                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                                                                                                               셤
                                                                                    ò
                                                                                                       g
                                                                                                                              ð
                                                                                                                                                   셤
                                                                                                                                                                         δ
                                                                                                                                                                                            셤
                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13869 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCGCGGTGG 13928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1486 GAGGCAGGGGTGGGGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGTGG 1545
```

Gaps

à 요

the

```
2000US - 0226219P . 2000US - 022681P 2000US - 022688P . 2000US - 0227182P . 2000US - 0229287P . 2000US - 0229344P . 2000US - 0239447P . 2000US - 02312447P . 2000US - 0230447P . 2000US -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0241787P.
2000US-0241808P.
2000US-0241809P.
2000US-0241826P.
2000US-0244617P.
                                                                                                                                                                                                                                                                                     2000US-02312444P.
2000US-0231413P.
2000US-0231414P.
2000US-0232080P.
                                                                                                                                                                                                                                                                                                                                                          2000US-0232081P.
2000US-0231968P.
2000US-0232398P.
2000US-0232399P.
2000US-0232399P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0235484P.
2000US-0235834P.
2000US-0235836P.
2000US-023637P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0236367P.
2000US-0236368P.
2000US-0236369P.
2000US-0236370P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0237040P.
2000US-0239935P.
2000US-0239937P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0246523P.
2000US-0246524P.
2000US-0246525P.
2000US-0246525P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0236802P.
2000US-0237037P.
2000US-0237038P.
2000US-0237039P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0233064P.
2000US-0233065P.
2000US-0234223P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0234274P.
2000US-0234997P.
2000US-0234998P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0246476P.
2000US-0246477P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0246474P.
2000US-0246475P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0246610P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0233063P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0241786P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0246478P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
13-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 18-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
30-AUG-2000;
30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
05-SEP-2000;
06-SEP-2000;
06-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -NOV-2000;
-NOV-2000;
-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -NOV-2000;
-NOV-2000;
-NOV-2000;
-NOV-2000;
                                                                                                                                                                                                                                                                                                                        -SEP-2000;
-SEP-2000;
-SEP-2000;
-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -SEP-2000;
     ******************************
```

```
18284 GAGGCGGGGGGATCATGAAGTGAAGATCAAGACCATCCTGGTTGGCCGGGCGCGCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1486 GAGGCAGGGGTGGTGTTGAGACAGAAAAAGCAAGGAGTTGCCGGGCACGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18224 crcacecerenaarcecaecaerrireesaeseceaesecesaesecearcaesaese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18164 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTATAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences of a number of human digestive system antigens. These can be used in the diagnosis, treatment and prevention of digestive system disorders, including cancer, Meckel's diverticulum, bacterial or parasitic infections, appendicitis, Hirschaprung's disease, chronic colitis or ulcerative colitis. The present sequence is a genomic DNA fragment encoding a digestive system antigen of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polynucleotides encoding digestive system antigens, useful for diagnosing, treating, preventing and/or prognozing disorders of digestive system, particularly cancer and cancer metastases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 32152 BP; 8332 A; 7335 C; 7256 G; 9229 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 32152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 9.7%; Score 275; DB 4; Local Similarity 88.1%; Pred. No. 7.5e-60; es 311; Conservative 0; Mismatches 40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 5110; 986pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ruben SM,
2000US-0246613P.
2000US-0249207P.
2000US-0249209P.
2000US-0249210P.
2000US-0249211P.
2000US-0249211P.
2000US-0249211P.
2000US-0249214P.
2000US-0249214P.
2000US-0249214P.
2000US-0249214P.
2000US-0249214P.
2000US-0249214P.
2000US-024924P.
2000US-024924P.
2000US-024924P.
2000US-024924P.
2000US-024926P.
2000US-024926P.
2000US-024926P.
2000US-024929P.
2000US-024929P.
2000US-024929P.
                                                                                                                                                                                                                                                                                                                                                             2000US-0251479P.
2000US-0251856P.
2000US-0251868P.
                                                                                                                                                                                                                                                                                                                                 2000US-0251988P
                                                                                                                                                                                                                                                                                                                                                 2000US-0256719P
                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0251869P.
2000US-0251989P.
2000US-0251990P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-502630/55.
08-NOV-2000; 2
17-NOV-2000; 2
                                                                                                                                          17-NOV-2000; 2
17-NOV-2000; 2
17-NOV-2000; 2
17-NOV-2000; 2
17-NOV-2000; 2
17-NOV-2000; 2
                                                                                                                                                                                                                                            17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
06-DEC-2000;
06-DEC-2000;
06-DEC-2000;
06-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
  쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
```

18107

1666 CAGCCGGGTGAGGTGGCGGGCGCCTGTAGTCCCCAGCTACTCAGGAGGCTGAGGCAAGAGA 1725

ò

1665

1545 18225 1605 ω

```
2000US-0230438P.
2000US-0231243P.
2000US-0231244P.
2000US-0231244P.
2000US-0231413P.
2000US-0231414P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0235836P.
2000US-0236327P.
2000US-0236367P.
2000US-0236368P.
2000US-0236369P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0241809P.
2000US-0241826P.
2000US-0246474P.
2000US-0246475P.
2000US-0246477EP.
2000US-0246477EP.
2000US-0246478P.
2000US-0246478P.
2000US-0246478P.
2000US-0246524P.
                                                                                                                                                                                                   2000US-0232081P.
2000US-0231968P.
2000US-0232397P.
2000US-0232398P.
                                                                                                                                                                                                                                                                                                                                                       2000US-0233063P.
2000US-0233064P.
2000US-0233065P.
2000US-0234223P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0239937P.
2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                       2000US-0232399P.
2000US-0232400P.
2000US-0232401P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0237039P.
2000US-0237040P.
2000US-0239935P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0241786P.
2000US-0241787P.
2000US-0241808P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0246526P.
2000US-0246527P.
2000US-0246528P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0246532P.
2000US-0246609P.
2000US-0246610P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0249214P.
2000US-0249215P.
2000US-0249216P.
                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0234274P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0234998P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0235484P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0236370P
2000US-0236802P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0237038P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0246611P.
2000US-0246613P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0249208P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-SEP-2000;
26-SEP-2000;
27-SEP-2000;
27-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-58P-2000;
02-007-2000;
02-007-2000;
02-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-007-2000;
03-00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-NOV-2000;
         18106 TAGCCGGGCGAGCTGGCGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAA 18047
                                                                  ġ₽.
                                                                                                                                                                                 Human; colorectal cancer; colorectal cancer antigen; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human colorectal cancer antigen coding sequence SEQ ID NO: 328
                                                                                                                                                                                                                                                              RESULT 7

AA157791/C

ID AA157791 standard; DNA; 32152 BP. XX

AC AA157791;

XX

By 19-OCT-2001 (first entry)

XX

Human colorectal cancer antigen codi

XX

Human; colorectal cancer antigen codi

XX

Human; colorectal cancer antigen codi

XX

Human; colorectal cancer antigen codi

XX

Colorectal cancer antigen codi

XX

D2-AUG-2001.

XX

D2-AUG-2001.

XX

D2-AUG-2001.

XX

D2-AUG-2001.

XX

A1-JAN-2000; 2000US-019065P.

PR 17-MAR-2000; 2000US-019662P.

PR 24-FEB-2000; 2000US-019662P.

PR 24-FEB-2000; 2000US-019662P.

PR 24-FEB-2000; 2000US-019662P.

PR 11-MAR-2000; 2000US-01963P4P.

PR 16-MAR-2000; 2000US-01151SP.

PR 19-MAY-2000; 2000US-021568P.

PR 11-JUL-2000; 2000US-021568P.

PR 14-MUG-2000; 2000US-022568P.

PR 14-AUG-2000; 2000US-022551AP.

PR 14-AUG-2000; 2000US-022551AP.

PR 14-AUG-2000; 200US-022551AP.

PR 14-AUG-2000; 200US-022551AP
                                                                    1726
                                                                                                                                                          1786
                                                                                                               18046
                                                                    ò
                                                                                                        셤
                                                                                                                                                          8 8
```

```
Human; colon cancer; congenital abnormality; infection; colitis;
inflammatory bowel disease; IBD; neoplastic disorder; gene therapy;
intestinal inflammatory disorder; malabsorption syndrome; gastric;
sigmoid disease; antibacterial; antiviral; antiinflammatory; cytostatic;
                                                                                                                            Genomic sequence #40 encoding human colon associated polypeptide.
                                                  AAS39621 standard; DNA; 32152 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-025266P.
2000US-0255267P.
2000US-0255268P.
2000US-0255268P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0224518P.
2000US-0224519P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0216647P.
2000US-0216880P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0225447P.
2000US-0225757P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0227182P
2000US-0227009P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0231244P
                                                                                                                                                                                                                                                                                                                17-JAN-2001; 2001WO-US001240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0220964P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0225214P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0225758P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0225759P
                                                                                                   (first entry)
                                                                                                                                                                                                                                                           WO200155302-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-2000;
28-JUN-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-JUL-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                   18-APR-2000;
19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-SEP-2000;
                                                                                                   17-DEC-2001
                                                                                                                                                                                                                                                                                      02-AUG-2001
                                                                          AAS39621;
                        RESULT 8
                                      AAS3962]
                                                   18284 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCGCGGTGG 18225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18106 TAGCCGGGCGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAA 18047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention provides the protein and coding sequences of a number of colorectal cancer antigens. These are shown in AAIS7547-AAIS640-and AAM38569-AAM38641. These can be used in the diagnosis, prevention and treatment of cancer of the colon and/or rectum. The present sequence is a colorectal cancer antigen genomic sequence. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                              preventing and/ or prognosing rectum including colorectal cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGCGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCGAGACCATCCTGGCTAACAC - - GGTGAAACCCCGTCTCTACTAAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1486 GAGGCAGGGGTGGGAGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGAGACCATCCTGGCTAACACGGGGTGAAAACCCCGTCTCTACTAAAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18046 ATGGCGTGAACCCCAGGGGGGGGGGGGGGCCAGGTGAGCCGAGATTGCGCCCACTGCACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 32152 BP; 8332 A; 7335 C; 7256 G; 9229 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9.7%; Score 275; DB 4; Length 32152; 88.1%; Pred. No. 7.5e-60;
                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 328; 522pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40; Indels
                                                                                                                                                                                                                                                                                                                                                                              Isolated polypeptide for treating, preventing and/
disorders related to the colon and rectum includin
and also for testing and detection e.g. diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                            Rosen CA, Barash SC, Ruben SM;
                                                                      17.NOV-2000; 2000US-0249297P; 17.NOV-2000; 2000US-0249297P; 17.NOV-2000; 2000US-0249309P; 17.NOV-2000; 2000US-0249309P; 01-DEC-2000; 2000US-0251030P; 05-DEC-2000; 2000US-025198P; 06-DEC-2000; 2000US-0251856P; 08-DEC-2000; 2000US-0251866P;           2000US-0249218P.
                                   2000US-0249245P.
2000US-0249264P.
2000US-0249265P.
                                                                                                                                                                                                                                                                        05-JAN-2001; 2001US-0259678P.
2000US-0249217P
                                                                                                                                                                                                                                              2000US-0251990P
                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                            2000US-0254097P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 88.1
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-457727/49.
                                                17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                              08-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                         and
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

us-08-731-499-6.rng

```
2000US-0246524P.
2000US-0246525P.
2000US-0246526P.
                                                                  2000US-0234998P.
                                                                                                                                                                                                                                    2000US-0246611P.
2000US-0246613P.
                                                                                                                                                                                                                                             2000US-0249207P.
2000US-0249208P.
                                                                                                                                                                                                                                                                                                       2000US-0249264P.
2000US-0249265P.
                             2000US-0232399P
                                                                                       2000US-0236367P
                                                                                           2000US-0236368P
                                                                                                                                                                                                                                                                          2000US-0249214P
2000US-0249215P
                        2000US-0232398P
                                                                                                                         2000US-0237040P
                                                                                                                                                                                                                                                             17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                               08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                       17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                   -NOV-2000;
-NOV-2000;
-NOV-2000;
```

```
The present invention relates to the isolation of novel human colon associated polypeptides (AAU22468-AAU22701), and the CDNA and genomic sequences encoding for them. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of disorders of the clon including colon cancer, congenital abnormalities (e.g. atresia and stenosis), bacterial and viral infections, inflammatory bowel disease (IBD), neoplastic cell disorders (e.g. polyps and adenomas, intestinal inflammatory disorders, colitis, colonic inflammation, diarrhoea and inflammatory disorders, colitis, colonic inflammation, diarrhoea and obstruction and sigmoid diseases. The polynucleotides sequences of the invention can also be used in gene therapy. AAS39582-AAS40060 represent DNA sequences encoding for the novel human colon associated polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pot_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isolated polypeptide for treating, preventing and, or prognosing disorders related to the colon including colon cancers and also for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 32152 BP; 9229 A; 7256 C; 7335 G; 8332 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO 518; 562pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       testing and detection e.g. diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                Rosen CA, Barash SC, Ruben SM;
           17.NOV-2000; 20000S-0249299F.
17-NOV-2000; 20000S-0249300P.
01-DEC-2000; 20000S-0250160P.
05-DEC-2000; 20000S-0251931P.
05-DEC-2000; 20000S-0251930P.
06-DEC-2000; 20000S-025198P.
06-DEC-2000; 20000S-0251479P.
06-DEC-2000; 20000S-0251869P.
08-DEC-2000; 20000S-0251869P.
08-DEC-2000; 20000S-0251989P.
08-DEC-2000; 20000S-0251989P.
08-DEC-2000; 20000S-0251989P.
08-DEC-2000; 20000S-0251989P.
08-DEC-2000; 20000S-0251989P.
                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-465567/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disorders
```

2; Gaps 9.7%; Score 275; DB 5; Length 32152; 88.1%; Pred. No. 7.5e-60; tive 0; Mismatches 40; Indels 2; Best Local Similarity 88.1 Matches 311; Conservative Query Match

13989 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAAATACAAAAAT 14046 14106 13869 GAGGCGGGTGCATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCGCGCGGTGG 13928 1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGGCACGGTGG 1545 1725 1785 1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAATACAAAAAT CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA 14047 racccedeceaderedecedececreracreceaecracrecedesecreaecreaecae 1726 ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA 1606 1666 셤 ð g a g ð ઠે 8

셤

```
18164 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAATTACAAAAT 18107
                                          18106 TAGCCGGGGAGGGGGGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAAA 18047
                                                                                 1726 ATGCCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA 1785
                           1666 CAGCCGGGTGAGGTGGCGGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                       gene therapy; cancer; liver disorder; hepatitis; neural disorder; Alzheimer's disease; human; colon; ds.
                                                                                                                                                                                                                                                                                                                  Human novel colon related polypeptide DNA SEQ ID NO 518.
                                                                                                                                                                                                                                   ADB32581 standard, DNA; 32152 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0214886P.
2000US-0215135P.
2000US-0216647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0217496P.
2000US-0218290P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0220964P.
2000US-0224518P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JAN-2001; 2001US-00764872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0190076P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0216880P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0220963P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0224519P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0225266P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0225267P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0229287P
                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                  US2003050231-A1.
                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-AUG-2000;
                                                                                                                                                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                             13-MAR-2003
                                                                                                                                                                                                                                                               ADB32581;
                                                                                                                                                                                                       RESULT 1
                                                      셤
                                                                           ò
                                                                                                       g
                                                                                                                                     ò
                                                                                                                                                          g
                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer related proteins, and polymerleotide sequences encoding them. The sequences of the invention are useful in the diagnosis, treatment. Operation and/or prognosis of the colon and/or rectum, including colorectal cancer, colorectal cancer metastases, and gastrointestinal disorders such as dysphagia, peptic ossophagitis, gastrointestinal circitable bowel syndrome, and peritoneal diseases. The invention also describes antibodies that bind colorectal cancer related proteins, vectors, host cells, and recombinant and synthetic methods for producing numan colorectal cancer related polynucleotides, polypeptides, and/or antibodies. ABS99797-ABS99974 represent genomic sequences encoding human colorectal cancer related proteins. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the USPTO web site at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18284 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATĆCTGGTTGGCCGGGCGCGGTGG 18225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG 1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGAGACCATCCTGGCTAACACGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAT 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New colorectal cancer polypeptide for diagnosing, prognosing, preventing, and treating immune, hyperproliferative, liver, kidney, reproductive disorders and for identifying modulators of therapeutic use.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present invention relates to the isolation of novel human colorectal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1486 GAGGCAGGGTGGGAGGTGTTGAGACTGAAGAAAGGCAGGAGTTGCCGGGCACGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
Human, colorectal cancer related protein, colon, rectum;
colorectal cancer metastasis, gastrointestinal disorder; cytostatic;
                                                                                                                                                  Genomic DNA #172 encoding human colorectal cancer related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 32152 BP; 8332 A; 7335 C; 7256 G; 9229 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9.7%; Score 275; DB 6; Length 32152;
88.1%; Pred. No. 7.5e-60;
tive 0; Mismatches 40; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; SEQ ID NO 328; 183pp; English.
                                  Best Local Similarity 88.1
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

g ò d

ઠ

Page 12

```
2000US - 022959345P

2000US - 0239431P

2000US - 0230431P

2000US - 0231243P

2000US - 0231244P

2000US - 0231244P

2000US - 0231244P

2000US - 0231414P

2000US - 0232081P

2000US - 0232081P

2000US - 023239P

2000US - 023249P

2000US - 023423P

2000US - 02343P

2000US - 02343P

2000US - 02363P

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0239937P

2000US-0240960P

2000US-0241721P

2000US-0241786P

2000US-0241786P

2000US-0241786P

2000US-0241809P

2000US-024647P

2000US-0246474P

2000US-0246474P

2000US-0246476P

2000US-0246476P

2000US-0246476P

2000US-0246476P

2000US-0246476P

2000US-0246476P

2000US-0246528P

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0249212P
                                      01.58P-2000;
05-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
13-0CT-2000;
20-0CT-2000;
20-0C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-SEP-2000;
27-SEP-2000;
27-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-NOV-2000;
08-NOV-2000;
17-NOV-2000;
*************************
```

```
The invention relates to an isolated nucleic acid molecule encoding a polypeptide. The nucleic acid is useful for preparing a medicament for preventing, treating or ameliorating a medical condition e.g. cancer, liver disorders such as hepatitis or neural disorders such as Alzheimer's disease. The present sequence represents a human novel colon related polypeptide DNA. Note: The sequence date for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html?DocID=20030050231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGCAGGGGTGGTGGTGAGACTGAAGAAAAAGGCAGGAGTTGCCGGGCACGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13869 gadecedercearcardaacreaadadarcaaccarccrecriecrececececece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1606 ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1666 CAGCCGGGTGAGGTGGCGGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acid molecule, useful for preparing a medicament for preventing, treating or ameliorating a medical condition e.g. cancer, liver disorders or neural disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 32152 BP; 9229 A; 7256 C; 7335 G; 8332 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.7%; Score 275; DB 9; Length 32152; 88.1%; Pred. No. 7.5e-60; vative 0; Mismatches 40; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; SEQ ID NO 518; 216pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SC;
17-NOV-2000; 2000US-0249213P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249244P.
17-NOV-2000; 2000US-0249244P.
17-NOV-2000; 2000US-0249246P.
17-NOV-2000; 2000US-0249246P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-025016P.
05-DEC-2000; 2000US-025119P.
05-DEC-2000; 2000US-0251186P.
06-DEC-2000; 2000US-0251186P.
06-DEC-2000; 2000US-0251186P.
08-DEC-2000; 2000US-0251186P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-DEC-2000; 2000US-0251990P
11-DEC-2000; 2000US-0254097P
05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 88.1
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-625420/59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ROSE/) ROSEN C A.
(RUBE/) RUBEN S M.
(BARA/) BARASH S C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                 80 X C C C C C C C X R X X I I I X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
```

14046

1726 ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA 1785

ò

```
2000US-0228924P.
2000US-0229287P.
2000US-0229343P.
                                                                                                                                                                  2000US-0231243P.
2000US-0231244P.
2000US-0231413P.
2000US-0231414P.
                                                                                                                        2000US-0229513P.
2000US-0230437P.
                                                                                                                                              2000US-0230438P.
2000US-0231242P.
                                                                                                                                                                                                                         2000US-0232081P.
2000US-0231968P.
                                                                                                                                                                                                                                               2000US-0232397P.
2000US-0232398P.
                                                                                                                                                                                                                                                                              000US-0232400P.
                                                                                          2000US-0229344P
                                                                                                   2000US-0229345P
                                                                                                                                                                                                               2000US-0232080P
                                                                                                                                                                                                                                                                     2000US-0232399P
                                                                                                                                                                                                                                                                                                    000US-0233063P
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0236370P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0237039P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0000US-0237040P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0239935P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0240960P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0241221P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000US-0241785P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0241787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0244617P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0000US-0246474P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0246476P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0246523P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0246524P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0246611P
2000US-0246613P
            22-AUG-2000;
22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
05-SEP-2000;
06-SEP-2000;
06-SEP-2000;
08-SEP-2000;
                                                                                                                                                                                                                       08-SEP-2000;
12-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
13-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                     25-SEP-2000;
26-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                            -SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                               29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-OCT-2000;
                                                                                                                                                                                                                                                                                                     14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                     27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-NOV-2000;
    ds; gene; human; colorectal cancer; antigen; gene therapy;
gastrointestinal disorder; inflammatory disease; infection; cancer;
mintestinal neoplasm; emall intestine carcinoid tumour;
mall intestina non-Hodgkin's lymphoma; small bowel lymphoma; ulcer;
mall intestine non-Hodgkin's lymphoma; small bowel lymphoma; ulcer;
mell intestine non-Hodgkin's lymphoma; small bowel lymphoma; ulcer;
mell intestine disorder; linked infantile agammaglobulinaemia;
my severe combined immunodeficiency; Digeorge anomaly;
myperproliferative disorder; acute lymphoblastic leukaemia;
my cute lymphocytic leukaemia; urinary system disorder; cortical necrosis;
kidney infarction; cardiovascular disorder; carcinoid heart disease;
my arrhythmia; respiratory disorder; non-allergic rhinitis; sinusitis;
musculoskeletal system disorder; Alberse-Schonberg disease;
marfan's syndrome; neurological disease; phenylketonuria;
marfan's syndrome; neurological disease; endocrine disorder;
mernick's encephalopathy; Alzheimer's disease; endocrine disorder;
my Grave's disease; Ushing's syndrome; reproductive system disorder;
prostatosis; benign prostatic hypertrophy; benign prostatic hyperplasis;
thrombosis; atherosclerosis; myocardial infarction; ischaemic attack.
Human colorectal cancer related polypeptide DNA #172.
                                                                                                             ADB93121 standard; DNA; 32152 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0184664P.
2000US-0186350P.
2000US-0189874P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0190076P.
2000US-0198123P.
2000US-0205515P.
2000US-0209467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0214886P.
2000US-0215135P.
2000US-0216647P.
2000US-0216880P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0220963P.
2000US-0220964P.
2000US-0224518P.
2000US-0224519P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0225214P.
2000US-0225266P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0225758P.
2000US-0225759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-FEB-2002; 2002US-00072349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0225213P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0225268P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0180628P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0225267P
                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                               US2003054420-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-JUL-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAY-2000;
07-JUN-2000;
28-JUN-2000;
                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                     20-MAR-2003
                                                                                                                                   ADB93121;
                                                                                     셤
                                  ઠ
                                                     셤
```

```
The invention relates to a colorectal cancer antigen. The antigen is useful for chromosome identification, chromosome mapping, radiation, hybrid mapping or gene therapy, or as hybridisation probes for differential identification of the tissues or call types present in a diagnosing and/or prosposing gastrointestinal disorders, including inflammatory diseases and/or conditions, infections, cancers (e.g. intestinal neoplasms (carcinoid tumour of the small intestine, non-looping inflammatory diseases and/or conditions of the small intestine, non-looping inflammatory diseases and/or propose for the small intestine, non-looping inflammatory diseases and/or propose for differential identification of the upper conditions of the small intesting and its nucleic acid are useful to provide immunological probes for differential identification of the tissue. The antigen and its nucleic acid are useful for treating, preventing, diagnosing and/or prognosing diseases, disorders and/or conditions of the immune system e.g. Bruton's disease, X linked infantile anomally, etc. The antigen and its nucleic acid is useful for treating, preventing and/or diagnosing hyperproliferative disorders (e.g. acute lymphoblastic leukaemia, etc), urinary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel colorectal cancer antigen useful for treating, preventing, diagnosing and/or prognosing gastrointestinal disorders, infections, cancers such as intestinal neoplasms, ulcers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.7%; Score 275; DB 10; Length 32152; 88.1%; Pred. No. 7.5e-60; ive 0; Mismatches 40; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 328; 179pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Barash SC
                                                           2000US-0249211P
2000US-0249213P
2000US-0249213P
2000US-0249214P
2000US-0249216P
2000US-0249216P
2000US-0249218P
2000US-0249218P
2000US-0249244P
2000US-0249244P
2000US-0249245P
2000US-0249245P
2000US-0249245P
2000US-0249245P
2000US-0249245P
2000US-0249245P
2000US-0249245P
2000US-0249245P
                                                                                                                                                                                                                                                                                                                          2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC.
                                               2000US-0249210P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0254097P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JAN-2001; 2001US-00764855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-708345/67.
                                                                                          17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                            17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                            17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                          -DEC-2000;
                                                                                                                                                                                                                                                                                          -NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                          -DEC-2000;
                                                                                                                                                                                                                                                           17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                            DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGG 1545

Gaps

5;

Best Local Similarity 88.1 Matches 311; Conservative

8

Similarity

```
18164 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAAATACAAAAAAT 18107
                                                                                                                                                                                            1725
                                                                                                                                                                                                                                                                                          ATGGCGTGAACCCCAGGGGCCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA 1785
CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG 1605
                                                                                                                                                                                              CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCCGTCTCTACTAAAAATTACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, immune; haematopoietic; immune/haematopoietic antigen; cancer; cytostatic; gene therapy; vaccine; metastasis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immune/haematopoietic antigen genomic sequence SEQ ID NO:21174.
                                                                                                                                                                                                                                                                                                                                                                                                                      AAK66362 standard; DNA; 36933 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0190076P.
2000US-0198123P.
2000US-0205515P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0214886P.
2000US-0215135P.
2000US-0216647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0220963P.
2000US-0220964P.
2000US-0224518P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0184664P.
2000US-0186350P.
2000US-0189874P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0209467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0216880P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0224519P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0225213P.
2000US-0225214P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0225266P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0225759P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0225268P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0225270P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0225447P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2001; 2001WO-US001354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-MAR-2000; 2
17-MAR-2000; 2
18-APR-2000; 2
19-MAY-2000; 2
07-JUN-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-JUL-2000;
26-JUL-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JUN-2000;
30-JUN-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-JUL-2000;
11-JUL-2000;
14-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2000;
18-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-NOV-2001
                                                                                                1606
                                                                                                                                                                                                                                                                                            1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAK66362;
  1546
                                                                                                                                                                                              1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAK66362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THE SECOND SECON
                                   셤
                                                                                              à
                                                                                                                                         셤
                                                                                                                                                                               à
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

```
2000US-0241809P.
2000US-0241826P.
2000US-0244617P.
2000US-0246474P.
2000US-0246475P.
                                                                                                                                         2000US-0235836P.
2000US-0236327P.
2000US-0236367P.
2000US-0236368P.
                                                                                                                                                             1000US-0236370P
                                                                                              2000US-0232400P
                                                                                                  2000US-0232401P
                                                                                                                          2000US-0234997P
                                                                                                                                 2000US-0235484P
2000US-0235834P
                                                                                                                                                         000US-0236369P
                                                                                                                                                                                             0000US-0240960P
                                                                                                                                                                                                                                                2000US-0246478P
                                                                                      2000US-0232398P
                                                                                          2000US-0232399P
                                                                                                                                                                                                                                                                                            2000US-0246613P
                                                                                                                                                                                                                                                                                       08-NOV-2000;
                                       05-SEP-2000;
                                          06-SEP-2000;
                                                                                                                                                                                                                                                    08-NOV-2000;
08-NOV-2000;
```

```
AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
activity, and can be used in gene therapy and vaccine production. (I)
proteins and polymucleotides may be used in the prevention, diagnosis and
treatment of diseases associated with inappropriate (I) axpression. For
example, they may be used to treat disorders associated with decreased
expression by rectifying mutations or deletions in a patient's genome
that affect the activity of (I) by expressing inactive proteins or to
supplement the patients own production of (I). Additionally, (I)
cupplement the patients own production of (I). Additionally, (I)
cupplement acids into a host cell and culturing the cell to express the
nucleic acids into a host cell and culturing the used to prevent,
diagnose and treat immune/haematopoietic-related diseases, especially
cancers and cancer metastesses of haematopoietic-derived cells. AAK64703
to AAK87694 represent human immune/haematopoietic antigen genomic
sequences from the present invention. AAK54942 to AAK87950 and AAM82169
represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1486 GAGGCAGGGGTGGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCCACGGTGG 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 36933 BP; 10500 A; 8526 C; 8341 G; 9566 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 21174; 3071pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9.7%; Score 275; DB 4; Length 36933;
18.1%; Pred. No. 8e-60;
ve 0; Mismatches 40; Indels 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ruben SM
                                                                                                                                                                                                                 2000US-0249245P.
2000US-0249264P.
2000US-0249265P.
2000US-0249297P.
2000US-0249299P.
2000US-0249299P.
                                                                                             2000US-0249213P.
2000US-0249214P.
2000US-0249215P.
2000US-0249216P.
2000US-0249217P.
2000US-0249218P.
2000US-0249218P.
                                                                                                                                                                                                                                                                                                                                   2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
2000US-0256719P.
                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0251856P.
2000US-0251868P.
2000US-0251869P.
                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0251479P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 88.1%;
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rosen CA, Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-483426/52.
                                           17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                  17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                    05-DBC-2000; 2
05-DBC-2000; 2
06-DBC-2000; 2
08-DBC-2000; 2
                                                                                                                                                               17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                 17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                  17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
```

1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG 1605

ઠે

```
ò
                                                                                                                                                                          g
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                       셤
                                                                               ð
                                                                                                           g
                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                       ò
13989 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAAATACAAAAAAT 14046
                                                                                                                                            14047 TAGCCGGGCGAGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGA 14106
                                                                                                                                                                             ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to novel DNA and protein sequences which are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates, (ii) for screening of bioactive agent capable of bioactive agent capable of bioactive agent capable of modulating the activity of CAP; (iii) for screening of a bioactive agent capable of modulating the activity of CAP; (iv) for diagnosing carcinoma; (vi) for inhibiting the activity of CAP; (vi) for diagnosing carcinoma; (vii) for neutralizing the effect of CAP; (ix) as a biochip; (x) for diagnosing carcinoma or a propensity to carcinoma; and (xi) for determining Carcinoma Associated (CA) gene copy number. In addition, the CA genes are useful as DNA vaccines and the CAP are useful as markers of section including lymphoma. The present sequence is one such CA coding sequence. Note: This patent is an equivalent to basic patent USZ002182586AI, for which no sequence data was published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Recombinant nucleic acid useful for diagnosis and treatment of carcinoma
                                                                                                                CAGCCGGGTGAGGTGGCGGGGGCGCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 129042 BP; 35555 A; 29165 C; 28632 G; 35690 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                              9.7%; Score 275; DB 11; Length 129042; 88.1%; Pred. No. 1.5e-59; ive 0; Mismatches 40; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytostatic; carcinoma; lymphoma; cancer; human; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1240; Opp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human genomic sequence hCG27276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          comprises a nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                      ACN44674 standard; DNA; 129042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2003; 2003WO-US006235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2002; 2002US-00087192
                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SAGR-) SAGRES DISCOVERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-328604/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2003073826-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Morris DW;
                                                                                                                                                                               1726
                                                                                                                                                                                                                                                                                                                                                                                       ACN44674;
                                                 1606
                                                                                                                1666
                   13929
                                                                                                                                                                                                                                                                                                                                       ð
                                                                            엄
                                                                                                                ઠે
                                                                                                                                    g
                                                                                                                                                                          ઠે
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                 셤
```

ij

Gaps

Query Match Best Local Similarity 88.1 Matches 311; Conservative

```
123590 ATGGCGTGAACCCCAGGGGGGGGGGCTGCAGTGAGCCGAGATTGCGCCACTGCACTCCA 123649
                                                                                                                                                                                                            123589
                                                                                     123471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary; antiparfinonian; antisickling; antianamic; antiarthritic; cancer; antiirheumatic; hepatotropic; cerebroprotective; antiinflammatory; antiparastic; cardiabetic; antiulcer; anticonvulsant; antifungal; antiparastic; cardiant; immune disorder; cardiovascular disorder; excretory system; ds.
                    123352 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCGCGCGGTGG
                                                                             123472 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAAATACAAAAAT
                                                                                                                                                                                                             123530 TAGCCGGGCGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGA
1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGG
                                                        1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG
                                                                                                                   1606 ATCGAGACCAFCCTGGCFAACACGGGGTGAAAACCCCGTCTCFACTAAAAATACAAAAAT
                                                                                                                                                                               1666 CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                           ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCCACTGCACTCCA
                                                                                                                                                                                                                                                                                                                                 Human excretory related polynucleotide SEQ ID NO 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0190076P.
2000US-0198123P.
2000US-0205515P.
2000US-0209467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-JAN-2001; 2001WO-US001323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0179065P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0184664P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0189874P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0216647P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0217496P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000US-0218290P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0220964P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0224518P
                                                                                                                                                                                                                                                                                                                                                                                                             AAI99076 standard; DNA; 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200155313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-APR-2000;
19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-MAR-2000;
16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JAN-2002
                                                                                                                                                                                                                                           1726
                                                                                                                                                                                                                                                                                                       1786
                                                                                                                                                                                                                                                                                                                                                                                                                                           AA199076;
                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
AAI99076/c
```

```
2000US - 0225266P
2000US - 0225268P
2000US - 0225270P
2000US - 0225770P
2000US - 022577P
2000US - 0225757P
2000US - 0225758P
2000US - 0225758P
2000US - 0225758P
2000US - 0225758P
                                                                                                                                                                                                                                                                                                                                                 2000US - 0234274P
2000US - 0234997P
2000US - 0234997P
2000US - 0235834P
2000US - 0235834P
2000US - 0235836P
2000US - 0235836P
2000US - 0236369P
2000US - 0236368P
2000US - 0236368P
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0237037P.
200US-0237039P.
200US-0237039P.
2000US-0237040P.
2000US-0239935P.
2000US-0239937P.
                                                                                                                                              2000US-0229343P.
2000US-0229344P.
2000US-0229345P.
                                                                                                                                                                                                                                                                                                  2000US-0232400P.
2000US-0232401P.
2000US-0233063P.
                                                                                                                                                                                               2000US-0230438P
                                                                                                                                                                                                               2000US-0231243P
                                                                                                                                                                                                                                2000US-0231413P.
                                                                                                                                                                                                                                                2000US-0232080P.
                                                                                                                                                                                                                                                                 2000US-0231968P
                                                                                                                                                                                                                                                                                   2000US-0232398P.
                                                                                                                                                                                                                                                                                          2000US-0232399P.
                                                                                                                                                                                                                                                                                                                           2000US-0233064P.
                                                                                                                                                                                                                                                                                                                                           2000US-0234223P
                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0236802P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0240960P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0241785P.
2000US-0241786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0241826P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0246477P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0246478P
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
122-AUG-2000;
22-AUG-2000;
22-AUG-2000;
30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                            29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
13-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
                                                                                                                                                                                                                                                                12-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                    27-SEP-2000;
27-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000;
                                                                                                                                                                                                                                                                                          14-SEP-2000;
                                                                                                                                                                                                                                                                                                                   14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                          21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2000;
```

```
2000US-0246611P.
2000US-0246613P.
2000US-0249207P.
2000US-0249208P.
                                                                                                                       2000US-0249213P.
2000US-0249214P.
2000US-0249215P.
2000US-0249216P.
2000US-0249218P.
2000US-0249214P.
2000US-0249244P.
                                                                                           , 2000US-0249209P.
, 2000US-0249210P.
, 2000US-0249211P.
, 2000US-0249212P.
                                                                                                                                                                                             2000US-0249297P.
2000US-0249299P.
2000US-0249300P.
2000US-0250160P.
                                                                                                                                                                               2000US-0249264P.
2000US-0249265P.
                                                                                                                                                                                                                         2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
                                                                                                                                                                                                                                                      2000US-0251479P.
2000US-0251856P.
2000US-0251868P.
                                                                                                                                                                                                                                               2000US-0256719P
                                                                                                                                                                                                                                                                                                 11-DEC-2000; 2000US-0254097P.
                                                                                                                                                                                                                                                                           2000US-0251869P
2000US-0251989P
08-NOV-2000;
17-NOV-2000;
                                                                                          17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                         01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
08-DEC-2000;
08-DEC-2000;
                                                                                                                                                                                             17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
```

(HUMA-) HUMAN GENOME SCI INC.

Rosen CA, Barash SC, Ruben SM

WPI; 2001-465569/50

Isolated nucleic acid molecule encoding excretory system antigen is used in preventing, treating or ameliorating a medical condition.

Example 2; SEQ ID NO 840; 574pp + Sequence Listing; English.

The invention relates to novel excretory system related human polynucleotides (AA198567-AA199503) and the encoded proteins (AAM99594-AAM99513) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy, espeically disorders related to the excretory system. The genes are isolated from a range of human its seed disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune cancer mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. crebral anoxia and epilepsy; and (f) infectious diseases cuch as viral, bacterial, fungal and parasitic infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO

```
2000US-0220963P
2000US-0220964P
2000US-0224519P
2000US-0225213P
2000US-0225213P
2000US-0225266P
2000US-0225266P
2000US-0225268P
2000US-0225268P
                                                                                                                                                                                                                                                                                                                                     2000US-0229343P.
2000US-0229344P.
2000US-0229345P.
2000US-0229509P.
2000US-0229513P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0232401P.
2000US-0233063P.
2000US-0233064P.
2000US-0233065P.
2000US-0234223P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0235836P
2000US-023537P
2000US-023537P
2000US-0235368P
2000US-0235369P
2000US-0235369P
2000US-0235370P
                                                                                                                                                                                                                                                                           2000US-0227182P.
2000US-0227009P.
2000US-0228924P.
2000US-0229287P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0231413P.
2000US-0231414P.
2000US-0232080P.
2000US-0232081P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0234998P.
2000US-0235484P.
2000US-0235834P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0239937P.
2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                         2000US-0225757P.
2000US-0225758P.
2000US-0225759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-023196BP.
2000US-0232397P.
2000US-0232398P.
                                                                                                                                                                          2000US-0225447P
                                                                                                                                                                                                                                    2000US-0226279P.
2000US-0226681P.
                                                                                                                                                                                                                                                   2000US-0226681P.
2000US-0226868P.
                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0230437P.
2000US-0230438P.
                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0231242P
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0231243P.
2000US-0231244P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0232399P.
2000US-0232400P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0234274P.
2000US-0234997P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0237037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0237039P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0239935P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0241809P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   000US-0241808P
11-JUL-2000; 24-JUL-2000; 26-JUL-2000; 26-JUL-2000; 26-JUL-2000; 26-JUL-2000; 26-JUL-2000; 214-AUG-2000; 214-AUG-2000; 214-AUG-2000; 214-AUG-2000; 214-AUG-2000; 214-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 20-SEP-2000;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-SEP-2000;
29-SEP-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
13-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-SEP-2000;
27-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-SEP-2000;
26-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-SEP-2000;
   1572
                                                                                                                                                                             1632
                                                                                                                                                                                                                                                                                                                                                     TACAGTGAGCCGAGATTGCGCCCACTCCAGCCTGGACGACGACTCCGTCTC 1812
                                                                                                                                                                                                                                     AGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGGC 1752
                                                                                                                                               275
                                                                                                                                                                                                       217
                                                                                                                                                                                                                                                                 157
                                                                                                                                                                                                                                                                                                                         97
                                                                                                                                                                                                                                                                                                                                                                                 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; kidney antigen; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; opthalmological; antiallergic; hepatotropic; antidiabetic; antiinflammatory; attiulcer; vulnerary; anticonvulsant; antiparasitic; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; ds.
                                                                                                                                                                                                                                                     334 TTATAAATGCGAGGGAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCCAGCACTTTGG
                                                                                                                                                                                           GAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGG
                                                                                                                   1513 TGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGG
                                                                                        Gaps
                                                                                      5,
                                                           DB 4; Length 335;
                                                                                      24; Indels
                              Sequence 335 BP; 48 A; 107 C; 82 G; 98 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human kidney related polynucleotide SEQ ID NO 741
                                                         9.7%; Score 274.6; DB 4
92.0%; Pred. No. 1.1e-60;
ative 0; Mismatches 24
 at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                1813 AAAAAAAAAAAAAAAGAAAGAAAA 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAAAAAAAAAAAAAAAAAAAA 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAI63426 standard; DNA; 335 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0184664P.
2000US-0186350P.
2000US-0190074P.
2000US-019123P.
2000US-020515P.
2000US-0205467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0216647P
2000US-0216880P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0179065P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0217487P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JAN-2001; 2001WO-US001343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                       Best Local Similarity 92.0
Matches 301; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200155323-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUN-2000; 2
07-JUL-2000; 2
07-JUL-2000; 2
11-JUL-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-FEB-2000;
02-MAR-2000;
17-MAR-2000;
11-MAR-2000;
18-APR-2000;
19-MAY-2000;
28-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-2001
                                                                                                                                                                                                                                                                                              1693
                                                                                                                                                                                                                                                                                                                                                      1753
                                                         Query Match
                                                                                                                                                                             1573
                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                                                                                                                                                                                                                                                                                                                           36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA163426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ប្តង្គន្ល
                                                                                                                                     g
                                                                                                                                                                     8 6
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                a &
                                                                                                                                                                                                                                                                                                                                                                           쉱
                                                                                                                                                                                                                                                                                                                                                                                                              8 6
                                                                                                                   ò
                                                                                                                                                                                                                              ð
```

```
Ruben SM;
                    2000US-0246476P.
2000US-0246478P.
2000US-024653P.
2000US-0246524P.
2000US-0246524P.
2000US-0246526P.
2000US-024652F.
2000US-024652P.
2000US-024652P.
                                                                                                          2000US-0246613P.
2000US-0249207P.
2000US-0249209P.
2000US-0249210P.
2000US-0249211P.
2000US-0249211P.
2000US-0249211P.
                                                                                                                                                                 2000US-0249214P.
2000US-0249215P.
2000US-0249216P.
                                                                                                                                                                                    2000US-0249217P.
2000US-0249218P.
2000US-0249244P.
2000US-0249245P.
                                                                                       2000US-0246609P.
2000US-0246610P.
2000US-0246611P.
                                                                                                                                                                                                                2000US-0249264P.
2000US-0249265P.
                                                                                                                                                                                                                                    2000US-0249299P
                                                                                                                                                                                                                                                                                                                           11-DEC-2000; 2000US-0254097P
05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                 (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                              Barash SC,
                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-488784/53.
                                       08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                       08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
01-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                  17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                            08-NOV-2000;
08-NOV-2000;
                                                                                                                                      17-NOV-2000;
17-NOV-2000;
                                                                         08-NOV-2000;
08-NOV-2000;
                                                                                                                                                    17-NOV-2000;
17-NOV-2000;
                                                                                                           08-NOV-2000
                                                                                                                                                                                                                                     NOV-2000;
                                                                                                                                                                                                                                                                                                                                                              Rosen CA,
```

New isolated nucleic acids and polypeptides, useful for diagnosing treating and/or preventing human diseases and disorders.

Disclosure; SEQ ID NO 741; 564pp + Sequence Listing; English

The invention relates to novel kidney related polymucleotides (AAI62971-AAI65793) and the encoded polypeptides (AAM2417-AAM45691) collectively known as kidney antigens and the use of such kidney antigens for detecting disorders of the kidney, especially kidney cancer and kidney cancer metastases. The polymucleotides and proteins are also useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer, and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease,

```
ï
                                                                                                                                                                                                                                                                                                                                                                  1513 TGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGG 1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGG 1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1693 AGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCC 1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1753 TACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTC 1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
                                                                                                                                                                                                                                                                                                                                                                                                            275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37
allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such as viral, bacterial; fungal and parastici infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                            334 TTATAAAATGCGAGGGAAGGCCGGGCGGGGGGTGGCTCACGCCTGTAATCCCCAGCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274 GAGGCCGAGGCGGGGGGTGCACCACGAGGTCGAGATCGAGACCATCCTGGCTAACAC--GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGCGAGGTGGCGGCGGCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    156 AGTCCCAGCTACTCGGGAGGCTGAGGCAGAGAATGGCGTGAACCCCAGGGGGCGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96 TGCAGTGAGCCGAGATTGCGCCCACTCCAGCCTGGCGACAGCGAGACTCCGTCTC
                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                     .;
;
                                                                                                                                                                                                                                                                    Query Match 9.7%; Score 274.6; DB 5; Length 335; Best Local Similarity 92.0%; Pred. No. 1.1e-60; Matches 301; Conservative 0; Mismatches 24; Indels 2.
                                                                                                                                                                                                                            Sequence 335 BP; 48 A; 107 C; 82 G; 98 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAAAAAAAAAGAAAGAAAA 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36 АААААААААААААААААААААААА 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: June 28, 2005, 19:33:53 Job time : 994.126 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1633
    88888888888
                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쇰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

14is Page Blank (uspto)

```
FEATURE:
NAME/KEY: -
LOCATION: 1..2821
OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
      444440000000000000
256.2
256.2
256.2
255.8
255.8
255.8
255.8
255.8
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
253.6
   00000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6, Appli
Sequence 174743,
Sequence 17189, A
Sequence 15535, A
Sequence 15535, A
Sequence 1681, A
Sequence 1681, A
Sequence 16824, A
Sequence 13755, A
Sequence 13755, A
Sequence 13753, A
Sequence 15273, A
Sequence 15136, A
Sequence 16118, A
Sequence 16119, A
                                                                                                                                                                                             June 28, 2005, 18:22:52; Search time 320.226 Seconds (without alignments)
14414.621 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                    US-08-731-499-6
2821
1 ATCCTAAGACGCAGCCTG......AGGGGTTCAAGACCAGCCTG 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Issued Patents NA:*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                           5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-680-395-6
US-08-892-695-6
US-09-949-016-174743
US-09-949-016-17681
US-09-949-016-15681
US-09-949-016-15535
US-09-949-016-15535
US-09-949-016-12534
US-09-949-016-12534
US-09-949-016-13755
US-09-949-016-13804
US-09-949-016-13634
US-09-949-016-13639
US-09-949-016-12363
US-09-949-016-12363
US-09-949-016-16118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1202784 segs, 818138359 residues
                              version 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                                                                            nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                              GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            255679
515679
258679
258175
258175
258175
64186
67479
67479
67479
86273
360470
18048
136947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2821
2821
270.6
269.6
269.6
267.2
267.2
267.2
266.6
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
266.4
26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2622.8
2622.8
2622.8
2622.4
2552.4
2559.8
259.8
                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                            OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                      ё
6
                                                                                                                                                                                                      Run
```

/note= "cDNA clone GCAP encodes a guanino cyclase activating protein

g

셤 ò g 8 g

ઠે

g

ò

g

ઠે

셤

ઠે

ò

ద

셤

ઠે

g

ò

g

ð

셤

셤 ઠ

δ

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                            CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC 120
                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                121 AGGGAATTTACCAGCTGAAGAAAGCCTGCCGGCGAGAGCTACAAACTGAGCCAAGGCCAGC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTAAGAGGGGCAGAGATGGGGAGAGTGCTGTCCACTCTGCATCATCGCCACTTTCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCACGTCCTTGGGCAAGGCCCTCCACCTTCCAACCCTGGGGTCCTCATCTGTGAGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCTCAGGGCTATGTGGGGGGGGGGGGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAAGCTTGAGGTCTGAGACTGCAGGATAGTTGGCATAAGACGTGTAGGCGCATCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                 AGGGAATTTACCAGCTGAAGAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTAAGAGGGCAGAGAGATGGGAGAGTGCTGTCACTCTGCATCATCGCCACTTTCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCACGTCCTTGGGCAAGGCCCTCCACCTTCCAACCCTGGGGTCCTCATCTGTGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGGAGAAGATGTCATGAACTAACAAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAAAATGGGGATAATAATAATAGTGGTTGAGGAAATGAATAGGATAATGTTTTAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGGAAGTGGTGCTGAGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                           CACTGGGGTGAAGGTGTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGGAGAGATGTCATGAACTAACAAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGGAGTCAGGCAGGGAGTGATATTGAGCTTCTCGTCCTAGTCTCAATTTCCTCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 TITGGAGTCAGGCAGGGAGTGATATIGAGCTICTCGTCCTAGTCTCAATTTCCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAAAATGGGGATAATAATAGTGGTTGAGAGGAATGAATAGGATAATGTGTTTAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCATAGGGTAGACCTCCATTCAGGCTGCTTGGGCTTTCCTCCCTGTAGCCCAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCTCAGGGCTATGTGGGGAGAGAGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAAAGAAAGCCCCTTAAAGGTGGCAGGAGTCCTGGAGATTCAGACACCTGACAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCATAGGGTAGACCTCCATTCAGGCTGCTTGGGCTTTCCTCCCTGTAGCCCAAAGCCC
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                         ö
                                                                                                                                                                                        Length 2821
                                                                                                                                                                                                                                                     ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTG
                                                                                                                  FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:GCAP US-08-892-695-6
                                                                                                                                                                                                                         Indels
                                                                                                                                                                                        4
                                                                                                                                                                                                                         ö
                                                                                                                                                                                      В
                                                                                                                                                                                     100.0%; Score 2821;
100.0%; Pred. No. 0;
iive 0; Mismatches
EARLIER FILING DATE: 1996-07-15
NUMBER OF SEQ ID NOS: 59
SOFTWARE: PATENTIN VEY. 2.0
SEQ ID NO 6
                                                                                    TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 2821; Conservative
                                                                  LENGTH: 2821
                                                                                                                                                                                                                                                            н
                                                                                                                                                                                                                                                                                           -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                         2400
                                                                                                                                                                                                                                                                                                                                                                                 2460
 2160
                                                                                                                                                                                                                                         2340
                                                                                                                                                                                                                                                                                                             2400
                                                                                                                                                                                                                                                                                                                                               2460
                                                                                                                                                                                                                                                                                                                                                                                                                 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2820
                                                                                             CTTCTCCTCCCTAACCTTGGTTATGTCTTGGCACACACAGGGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                             ACAGTTTTGGATTATTGTGTTTTTTAGATGTGGAATTATTTTTGTTATATAAACTCTTAT
                                                                                                                                                                                                                                                                                                                                                               GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2701 GGTAAAAATAATTGATTAGAAAATATTGGCCAGGGGGGGAGCAGCTCACACCTGCAATCC
 TCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACACAACTCCCAGCCATAAGCTG
                     TCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAAACTCCCAGCCATAAAGCTG
                                                                                                                                                                      TGTTGACTGGGATTGTGGGCTGGGCTTGGCTTCTAACTGCTGTGACCCCAAGACAGCCA
                                                                                                                                                                                                                                                                           AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGTGCCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAAACTGAAAACCAGGGCCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITACAGGIGIGITATITCATATGATAGTCATATAAAATTICCTITAGACATCAATTITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTAAAAAATAGTTGATTAGAAAATATTGGCCAGGTGCAGCTCACACCTGCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGACTTTGGGGAGGCGGGTGGATCACCTGAGGTCAGGGGTTCAAGACCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGACTITIGGGGGGGGGGGGGGGGGCCTCCTCAGGGCCAGGGTTCAAGACCAGCCT
                                                                                                                                      CTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                               GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITACAGGIGIGITATITCATATGATAGICATATAAAATITCCTITAGACATCAATITIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFOGRATION OF WAS APPLICANT: Gray, JOS W
APPLICANT: Gray, JOS W
APPLICANT: Collins, Collin
APPLICANT: Godfrey, Soo in.
APPLICANT: Godfrey, Tony
APPLICANT: Godfrey, Tony
APPLICANT: Kowel, David
APPLICANT: Kowel, David
APPLICANT: Kowel, Usavid
APPLICANT: Kowel, Usavid
APPLICANT: Kowel, David
CURRENT REPLICATION NUMBER: 108/08/892,695A
CURRENT APPLICATION NUMBER: 08/785,532
EARLIER APPLICATION NUMBER: 08/785,532
EARLIER PILING DATE: 1997-01-17
EARLIER PILING DATE: 1997-01-17
EARLIER PILING DATE: 1997-01-17
EARLIER PILING DATE: 1996-10-16
EARLIER PLING DATE: 1996-10-16
EARLIER PLING DATE: 1996-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 6, Application US/08892695A; Patent No. 6808878; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ġ 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
US-08-892-695-6
                                                                                                                                                                     2221
                                                                                                                                                                                                                                                                                                             2341
                                                                                                                                                                                                                                                                                                                                                                               2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2641
                                                                  2161
                                                                                                2161
                                                                                                                                                                                                                                                                         2341
                                                                                                                                                                                                                                                                                                                                                                                                                 2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2521
                                                                                                                                                                                                                                         2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2761
                                  2101
                                                                                                                                    2221
                                                                                                                                                                                                                                                                                                                                               2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2821
 2101
                                                                                                                                                                                                       2281
```

us-08-731-499-6.rni

Page 4

0 CONTROL OCCUPATION CONTROL C	US-05-949-016-174743/c US-08-949-016-174743/c Sequence 174143, Application US/09949016 Sequence 174143, Application US/09949016 Sequence 174143, Application US/09949016 SEGNERAL INFORMATION: OLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14
10	AGACTCCGTCCTCAAAAAAAAAAAAAAAAAAAAAAAAAA

```
FACULANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 00/241,755
FRIOR APPLICATION NUMBER: 60/241,755
PRIOR PELING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-06
NUMBER OF SEQ ID NOS: 207012
SOUTHARD: PESSEQ FOR WINDOWS VERSION 4.0
SEQ ID NO 16681
                                                                                                                                                                                                                       230368 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTA 230425
                                                                                                                                                                                                                                                                                                                230426 AAAATACAAAAATTAACCGGGGGGGGGGGGGGCGCTGTAGTCCCAGCTACTCGGGAG 230485
                                                                                                                                                                                                                                                                                                                                                                                       12325 ATAATAATAATAAAAAAAAAAAAGGCCGGGCCGGTGGCTCACGCCTGTAATCCCAGGACT 12266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12265 Trescadecceadecedecedarcaceadercadeadrancaadaccarccrecraacac 12206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12205 --ĠĠŢĠĄĄĄĊĊĊĠŢĊŢĊŢĄĊŢĄĄĄĄĄĄŢĄĆĄĄĄĄĄŢŢĄĠĊĊĠĠCĄĄĠGŢĠĠĊĠĠĊĠĊ 12148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1532 GCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTTGGGAGGCCGAGGCGGGCAGAT 1591
                                                                                                                                                                                                                                                                       AAAATACAAAAAATCAGCCGGGTGAGGTGGCGGGGCGCTGTAGTCCCCAGCTACTCAGGAG 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCG 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1569 TTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC
                                                                                                                                                                           1592 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTACTA
                                                                                                                                                                                                                                                                                                                                                                 GCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGCCCGAGCCTACAGTGAGCCGAGATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1509 AGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCTGTAATCCCAGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1629 GGGGTGAAACCCCGTCTTACTAAAATACAAAATCAGCCGGGTGAGGTGGCGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Gaps
                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4; Length 51508;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9.6%; Score 269.6; DB 4; Length
10.6%; Pred. No. 3e-68;
ve 0; Mismatches 29; Indels
                                      14; Indels
                94.8%; Pred. No. 4.6e-68;
tive 0; Mismatches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 16681, Application US/09949016
Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 90.6
Matches 299; Conservative
              Best Local Similarity 94.8
Matches 291; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  230606 AAAAAA 230612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1832 AAAGAAA 1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
US-09-949-016-16681/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Human
US-09-949-016-16681
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1772
                                                                                                                                                                                                                                                                          1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1689
                                                                                                                                                                                                                                                                                                                                                                 1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                             셤
                                                                                                                                                                           ò
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABELICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE REPERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PLILING DATE: 2000-09-08
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOUTHARE: PSESEE OF Windows Version 4.0
SEQ ID NO 17189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCTACAGTGAGCCGAGATTGCGCCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCG 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       405 Triogeadecceadecegecearcaceadercagearcaacarcaacarcarecreecraacac 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 --GGTGAAACCCGTCTCTACTAAAATACAAAAATTAGCCGGGCRAGGTGGCGGGCGC 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCAGGGGGGCG 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               227 AGCCTGCAGTGAGCCGAGATTGCGCCACTGCAGCCTGGGCGACAGCGAGAGACTCC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                465 ATAATAATAAAAAAAAAAACAGGCCGGGCCCGGTGGCTCACGCCTGTAATCCCAGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1629 GGGGTGAAACCCCGTCTCTACTAAAATACAAAAATCAGCCGGGTGAGGTGGGGGGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                     1509 AGACTGAAGAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.6%; Score 270.6; DB 4; Length 255679;
                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                           DB 4; Length 601;
                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                     Score 270.8; DB 4;
Pred. No. 5.9e-70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FBELSEQ for Windows Version 4.0
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17189, Application US/09949016
Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRATURE:
NAME/KEY: misc feature
LOCATION: (1)...(255679)
CTHER INFORMATION: n = A,T,C or
US-09-949-016-17189
                                                                                                                                                                                                                                                                                                                                         9.64;
                                                                                                                                                                                                                                                                                                                                         Query Match 9.6
Best Local Similarity 90.6
Matches 299; Conservative
                                                                                                                                                                                                                                                                     ORGANISM: Human
US-09-949-016-174743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
US-09-949-016-17189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
```

셤

ઠ

g

ò

q

ò

셤

ò

q

ઠે

ð

ဖ

```
Query Match
Best Local Similarity 90.0°
Matches 298; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-13755/c
                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                    US-09-949-016-16435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-13755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1696
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                              US-09-949-016-15535/c

i Sequence 15535, Application US/09949016

i Retent No. 6812339

i GENERAL INFORMATION:

i APPLICANT: VENTER, J. Craig et al.

i TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

i TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

i TITLE OF INVENTION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

i PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

i SOFTHARE: PESELSE OF Windows Version 4.0

second in 131332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VB-09-49-016-16435/c

Sequence 16435, Application US/09949016

Sequence 16435, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016
                      36984 AGTGAGCCGAGATCGCGCCACTGCACTCTAGCCTGGGCGACAGCGAGAGCTCCGTCTCAAA 36925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37222 AGAAAGAGAGAAAGAGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAA 37163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1516 AGAAAAGCAGGAGTTGCCGGGCACGTGCTCACGCCTGTAATCCCAGCACTTTGGGAG 1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1576 GCCGAGGCGGCCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGA 1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1636 AACCCCGTCTCTAAAAATACAAAAATCAGCCGGGTGAGGTGGCGGCGCCTGTAGT 1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1756 AGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAAA 1815
  AGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCG 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1696 CCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTAC 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 131332;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 9.5%; Score 269.4; DB 4; Best Local Similarity 91.4%; Pred. No. 6.6e-68; Matches 297; Conservative 0; Mismatches 26;
                                                                                                              12027 TCTCAAAAAAAAAAAAAAAAAAGAAAACAA 11998
                                                                           36924 AAAAAAAAAAAAAAAAAAAAAAGAGAG 36900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1816 AAAAAAAAAAGAAAGAAAAG 1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-15535
1749
                                                                           1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                          g
                                                                                                              셤
                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   සු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
Sequence 13755, Application US/09949016

Patent No. 6812339
GENERAL INCOMMATION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION WIMBER: US/09/949,016
TITLE OF INVENTION WIMBER: (0/241,755
FILE REFERENCE: Z000-04-14
FRIOR APPLICATION NUMBER: 60/231,768
FRIOR FILING DATE: Z000-10-20
FRIOR FILING DATE: Z000-10-03
FRIOR FILING DATE: Z000-10-03
FRIOR FILING DATE: Z000-09-08
NUMBER OF SEQ ID NOS: Z07012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13755
LENGTH: Z4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224807 AGTGAGCCGAGTCGCGCCACTGCACTCCAGCCTAGGCGACAGTGAGACTCCGTCACAAA 224748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225045 AAAATACTTAGGAAGGCCGGGCGGGGGTGTCTCATGCCTGTAATCCCAGCACTTTGGGAG 224986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1756 AGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACGAGAGACTCCGTCTCAAA 1815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAGCTACTCAGGAGGCTGAGGCAAGAGATGGCGTGAACCCCCAGGGGGCCGAGCCTAC 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1576 GCCGAGGCGGCGAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1516 AGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                               Length 258775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 24166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                               9.5%; Score 267.4; DB 4; Length 90.0%; Pred. No. 4.2e-67; tive 0; Mismatches 31; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 9.5%; Score 267.2; DB 4; Best Local Similarity 89.5%; Pred. No. 9.1e-68; Matches 299; Conservative 0; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224747 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGGA 224717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-30

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-0-06

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: PASESEQ for Windows Version 4.0

SEROID NO 16435

LENGTH: 258775
```

g

ద Š 셤

ઠે

q

ઠ

ò 욥 ò

```
Sequence 18829, Application US/09949016

Sequence 18829, Application US/09949016

Patent No. 6812339

GENERAL INCORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: 05/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PLILNG DATE: 2000-10-20

PRIOR PLILNG DATE: 2000-10-30

PRIOR PLILNG DATE: 2000-10-03

PRIOR PLILNG DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FREESE FREESE for Windows Version 4.0

SEQ ID NO 15829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14894, Application US/09949016

Batent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25250 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGTGTGAACCCCAGGGGGC 25191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1747 CGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACAGAGAGACTC 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1567 CTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1507 TGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25428 TCACACAAAAGAATCTCATATTTTGGCCGGGCGGGGGGTGGCTCACGCCTGTAATCCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1627 ACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAATCAGCCGGGTGAGGTGGCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 44166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                             38026 AAAAAAAAAAAAAAAAAAATTTGGGACAGATGT 37993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 9.5%; Score 266.6; DB 4; Best Local Similarity 90.5%; Pred. No. 2.1e-67; Matches 296; Conservative 0; Mismatches 29;
                            1815 AAAAAAAAAAGAAAGAAAAGAAAAGGCAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25130 CGTCTCAAAAAAAAAAAAAAAAAAAA 25104
                                                                                                                                                             RESULT 10
US-09-949-016-15829/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-14894/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-949-016-15829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1807
                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FARENT NO. VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: 00/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR PILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOCTWARE: RESESEQ for Windows Version 4.0
SEQ ID NO 12234
                                                                                                                                      8765 GGCCGAGGCGGGTGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GGTG 18708
                                                                                                                                                                                                                                                                         8707 AAACCCCGTCTCTACTAAAATACAAAATTAGCCGGGCGAGGTGGCGGGGGGCGCTGTAG 18648
                                                                                                                                                                                                                                                                                                                                                                                   18647 TCCTAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCAGGAGGCGGAGCCTG 18588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38324 AAAAAAAAAAAAAAAGGCCGGGCGCGGGTGGCTCACGCCTGTAATCCCCAGCACTTTGGGA 38265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38264 GGCCGAGGCGGGTGGATCACGAGGTCAGGAGTCGAGACCATCCTGGCTAACAC - GGTG 38207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81146 TCCTAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCCAGGAGGCGGAGCCTG 38087
                                                                                                                                                                                                                                                                                                                                TCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTA 1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1575 GGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGCCATCCTGGCTAACACGGGGTG 1634
AAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA 1574
                                                                                                         GGCCGAGGGGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTG
                                                8825 AAAAAAAAAAAAAAAGGCCGGCCGCGCGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGTGAGCCGAGATTGCGCCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGTGAGCCGAGATTGCGCCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1515 AAGAAAAGCAGGAGTTGCCGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.5%; Score 267.2; DB 4; Length 91665;
89.5%; Pred. No. 2.3e-67;
tive 0; Mismatches 33; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18527 AAAAAAAAAAAAAAAAAATTTGGGACAGATGT 18494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12234, Application US/09949016
Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 89.5'
Matches 299; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Human
US-09-949-016-12234
                                                                                                         1575
                                                                                                                                                                                                                                                                                                                                                                                                                                         1755
                                                                                                                                                                                                                                                                                                                                1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1755
  1515
                                                                                                                                                                                                                      1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
```

ద

ઠે

g

ò

셤

ò

g

8

Š

```
1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1811
                                                                                                                                                                 ઠે
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PAPLICATION NUMBER: 60/237,768
PRIOR PELING DATE: 2000-10-03
PRIOR PELING DATE: 2000-10-03
PRIOR PELING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOCTHWARE: PSESCEQ for Windows Version 4.0
SEG ID NO 11804
LENGTH: 67479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35522 CTTTGGGAGGCCGAGGCGGGTGGATCACGAGGTCAGGAGTCGAGACCATCCTGGCTAAC 35463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAAC 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1687 GCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGC 1746
                                                                                                                                                                                                                                                                                                                                                             1507 TGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGCTGCCTCACGCCTGTAATCCCAGCA 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1747 CGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTC 1806
                                                                                                                                                                                                                                                                                     Query Match 9.5%; Score 266.6; DB 4; Length 54180; Best Local Similarity 90.5%; Pred. No. 2.4e-67; Matches 296; Conservative 0; Mismatches 29; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTCTCAAAAAAAAAAAAAAAAAAAAA 1833
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14894
LENGTH: 54180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 11804, Application US/09949016; Patent No. 6812339; GENERAL INFORMATION:
                                                                                                                                                                                FEATURE:
NAME/KEY:
LOCATION: (1)...(54180)
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) NAME/KEY: misc_feature

| LOCATION: (1)...(67479)

| OTHER INFORMATION: n = A,T,C or G

US-09-949-016-11804
                                                                                                                                             TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
US-09-949-016-11804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                      US-09-949-016-14894
                                                                                                                                                                                                                                                                                                                                                                                                                                   1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
```

```
Sequence 15358, Application US/09949016
; Sequence 15358, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICAWT: VENTER, J. Craig et al.
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; TURRENT APPLICATION NUMBER: US/09/949, 016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241, 755
; PRIOR FILING DATE: 2000-10-03
; PRIOR PELING DATE: 2000-10-03
; PRIOR PELING DATE: 2000-00-03
; PRIOR PELING DATE: 2000-00-03
; PRIOR PELING DATE: 2000-00-03
; RIOR FILING DATE: 2000-00-03
; RIOR PRIOR PILING DATE: 2000-01-00-03
; RIOR FILING DATE: 2000-01-00-03
; ROFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                           33498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33559 GCTGCAGTGAGCCGAGATTGCGCCACTGCACTCCAGCGTGGGCGACAGAGAGACTCCGTC 33618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1691 GTAGTCCCAGCTACTCAGGAGGCTGAGGAAATGGCGTGAACCCCAGGGGGCCGAG 1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGCCGAG 1750
                                                                                                                                                                                                                             1571 GGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
                                                                                                                                                                                                                                                          11100 AATTTATAAAGAAAACAGGTGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1511 ACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTT
                                                                                                                                                                                                                                                                                                                                          1511 ACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCTGTAATCCCAGCACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Gaps
                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
9.4%; Score 266.4; DB 4; Length 71119;
Best Local Similarity 90.0%; Pred. No. 3.4e-67;
Matches 297; Conservative 0; Mismatches 31; Indels 2;
Length 67479;
  9.4%; Score 266.4; DB 4; Length 90.0%; Pred. No. 3.2e-67; Live 0; Mismatches 31; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33619 TCAAAAAAAAAAAAAAAGAAAGAAACAGG 33648
Query Match
Best Local Similarity 90.0°
Matches 297; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-949-016-15358
```

```
Search completed: June 29, 2005, 05:28:00 Job time: 326.226 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1645
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                          Sequence 15273, Application US/09949016

Sequence 15273, Application US/09949016

Releant No. 681239

GREKEAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYNORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: POLYNORPHISMS, METHODS OF DETECTION AND USES THEREOF;

FILE REPREBACE: CLOOL307

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR PILING DATE: 2000-00-10-20

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRACE CONTING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRACE CONTING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: RESECTED WINDOWS VERSION 4.0

SEQ ID NO 15273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 13173, Application US/09949016; Patent No. 6812339; GENERAL INFORMATION:
A APPLICANT: VENTER, J. Craig et al.; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1652 AAAATACAAAAATCAGCCGGGTGAGGTGGCGGGCGCCTGTAGTCCCAGCTACTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCCGAGCCTACAGTGAGCCGAGATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1532 GCCGGGCACGCTCGCCTCTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67901 GCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1592 CACGAGGICAGGAGATCGAGACCATCCTGGCTAACACGGGGGTGAAACCCCCGTCTCTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 86273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 9.3%; Score 263.6; DB 4 Best Local Similarity 93.2%; Pred. No. 2.6e-66; Matches 287; Conservative 0; Mismatches 19
                                                                                                                                 TCAAAAAAAAAAAAGAAAGAAAAGAAAAG 1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similary,
Matches 287; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67603 ATAAATAA 67596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1832 AAAGAAAA 1839
                                                                                                                                                                                                                    US-09-949-016-15273/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
US-09-949-016-13173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Human
US-09-949-016-15273
                                                                                                          1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1712
                                    1751
                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                               g
                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

```
263945 GGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTC 264002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263885 AGTTCTGGTCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTTGGAAGGCCGAGGCG 263944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1705 TCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTACAGTGAGCCG 1764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1525 AGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1585 GGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 360470;
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 263; DB 4; Length 36 Pred. No. 1.1e-65; 0; Mismatches 30; Indels
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
FRIOR PILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-00-03
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264183 AAAAAGTTCTAAAATCTAGTTTTT 264207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1825 AGAAAGAAAGAAAGGCAGGAGTT 1849
                                                                                                                                                                                                                                                                                                                                                                                                                  9.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 9.3
Best Local Similarity 90.2
Matches 293; Conservative
                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Human
US-09-949-016-13173
```

Lric bade Blank (nebto)

Title: Perfect score:

Sequence:

nucleic

Run

Scoring table:

Searched:

Minimum DB Maximum DB

Database

```
Sequence 5, Applisequence 16, Appl Sequence 12, Appl Sequence 12, Appl Sequence 36, App Sequence 575, App Sequence 5798, App Sequence 250, App Sequence 261000, Sequence 17530, A Sequence 195045, Sequence 195046,                      Sequence 328, App
Sequence 518, App
Sequence 328, App
Sequence 1240, App
Sequence 840, App
Sequence 544, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9556, App
Sequence 112, App
Sequence 112, App
Sequence 258046,
Sequence 258046,
Sequence 2197, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5799, Ap
Sequence 10, Appl
Sequence 750, App
Sequence 82, Appl
  Sequence 39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-731-499-6
; Sequence 6, Application US/08731499
; Publication No. US20030148270A1
; GENERAL INFORMATION:
; APPLICANT: GRAY: Joe W.
; APPLICANT: GRAY: Joe W.
; APPLICANT: GOFFREY, Tony
; APPLICANT: ROWERL, Dohanna
; TITLE OF INVENTION: GENES FROM THE 20q13 AMPLICON AND THEIR
; TITLE OF INVENTION: GENES FROM THE 20q13 AMPLICON AND THEIR
; TITLE OF INVENTION: USES
; NUMBER OF SEQUENCES: 44
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend and Crew
STREET: Two Embarcadero Center, 8th Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP:
                                          US-09-764-872-518

US-10-072-349-328

US-10-072-349-328

US-10-087-192-544

US-10-287-192-544

US-10-287-192-544

US-10-287-192-54

US-10-75-790-16

US-10-75-790-16

US-10-75-790-16

US-10-765-790-16

US-10-78-78-36

US-10-00-131-12

US-10-00-131-12

US-10-00-131-12

US-10-00-131-15

US-10-00-1-16

US-10-10-10-16

US-10-10-10-16

US-10-10-10-16

US-10-10-10-16

US-10-10-16

US-10-10-10-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
PRILING DATE: 16-OCT-1996
CLASSIPICATION: 435
                                                                                                                                                                              7995
74279
74279
45000
122186
24264
59942
810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  816
101569
68495
405660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31304
31304
44030
44030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94111-3834
COMPUTER READABLE FORM:
                                                                                                                                                238484
     877777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.6.6.6.6.6.6.6.6.6.6.6.6
277.2
275
275
275
275.6
273.4
273.6
272.6
272.6
271.8
271.8
271.8
271.8
271.6
271.6
271.6
271.6
271.6
271.6
271.6
271.7
271.6
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
271.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        263.6
263.6
259.8
259.8
259.8
259.8
258.6
258.6
258.6
  Sequence 11, Appl
Sequence 11, Appl
Sequence 134687,
Sequence 134687,
Sequence 23318, A
                                                                                                                                                                      June 29, 2005, 01:06:08; Search time 1103.5 Seconds (without alignments) 15978.923 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                 1 ATCCTAAGACGCACAGCCTG.......AGGGGTTCAAGACCAGCCTG 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published Applications NA:*

1: /cgm2_6/ptodata/1/pubpma/USO7_PUBCOMB.seq:*
2: /cgm2_6/ptodata/1/pubpma/PCT_NEW_PUB.seq:*
3: /cgm2_6/ptodata/1/pubpma/USO6_PUBCOMB.seq:*
4: /cgm2_6/ptodata/1/pubpma/USO6_PUBCOMB.seq:*
5: /cgm2_6/ptodata/1/pubpma/USO8_PUBCOMB.seq:*
6: /cgm2_6/ptodata/1/pubpma/USO8_NEW_PUB.seq:*
7: /cgm2_6/ptodata/1/pubpma/USO8_NEW_PUB.seq:*
8: /cgm2_6/ptodata/1/pubpma/USO8_PUBCOMB.seq:*
10: /cgm2_6/ptodata/1/pubpma/USO8_PUBCOMB.seq:*
11: /cgm2_6/ptodata/1/pubpma/USO8_PUBCOMB.seq:*
11: /cgm2_6/ptodata/1/pubpma/USO9_PUBCOMB.seq:*
11: /cgm2_6/ptodata/1/pubpma/USO9_PUBCOMB.seq:*
12: /cgm2_6/ptodata/1/pubpma/USO9_NEW_PUB.seq:*
13: /cgm2_6/ptodata/1/pubpma/USO9_NEW_PUB.seq:*
14: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
15: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
16: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
17: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
18: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
19: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
21: /cgm2_6/ptodata/1/pubpma/USO0_PUBCOMB.seq:*
22: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
23: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
24: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
24: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
25: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
26: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
26: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
26: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
26: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
26: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
27: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
28: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
29: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubpma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubma/USOO_PUBCOMB.seq:*
20: /cgm2_6/ptodata/1/pubma/USOO_PUBCOMB.seq:*
20: /cgm2_6/p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12134778
                          version 5.1.6
- 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-731-499-6
2 US-10-737-082-11
2 US-10-76-790-11
3 US-10-027-632-134687
7 US-10-027-632-134687
0S-10-357-930-2318
0S-10-357-930-29199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6067389 seqs, 3125258755 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                             nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                          GenCore (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-731-499-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2821
11006
11006
600
600
1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19.8
19.8
11.9
```

Sequence 29199,

1103.4 1103.4 559.6 559.6 337

Score

Result

AGCCTCAGGGCTATGTGGGGAGAGAGACTTGGATTACACACTTGAGCCCTCCAGCTC AGCCTCAGGGCTATGTGGGAGAGAGAGAGATACACACTTGAGCCCTCCAGCTC TCTCAGGTCCACCCAGCATTTCCGTGGTACCATGGAATACACACTTGAGCCCTCCAGCTC TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGGAAAAGTTAAAACTTCAATTCATCA TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA TCTCAGCTCCACCCTTAAAGGTGGCAGAGACTCCTGGAGAATTCAGACATTCATCA GCAAAGAAGAAGAAGAGAAACTTAAAGGTGGCAGAGAGCCCTGACAAGCC GCAAAGAAGAAAAAGTTAAAAGTTCAATTCATCAATCATCAAGCC GCAAAGAAGAAAAAAACTTCAAAAGACTGAAAGCC GCAAAGAAGAAAAAAAAAA	1021 CAAGTGGGTGATGATGCTGCAATTGGACATGATCCCAGCAGGTGGCTCGCTC
6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8	6
PRIOR APPLICATION DATA: PRIOR APPLICATION DATA: FILING DATE: 15-JUL-1996 ATTORNEY/AGENT INFORMATION: NAME: Hunter, Tom REGISTRATION NUMBER: 23070-068910 TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 2821 base pairs TYPE: nucleic acid STRANDENESS: single TOPOLOGY: linear MOLECULE TYPE: cDNA FEATURE: NAME/KEY: - LOCATION: 12821 OTHER INFORMATION: quanino cyclase activating protein OTHER INFORMATION: US-08-731-499-6	Query Match 100.00, Score 2821, DB 8; Length 2821,

셤 ઠે 셤 ઠે 엄 δ 셤 ð 셤 ઠે g ò 요 ઠે g ò g ò g ò g

ò

```
APPLICANT: Bayer meatures and APPLICANT: Bayer meatures and APPLICANT: Bayer meatures and APPLICANT: Burgess, Chris APPLICANT: Burgess, Chris APPLICANT: Burgess, Chris APPLICANT: Harvey, Jeanne APPLICANT: Lechner, John F. APPLICANT: Li, Zheng TILE OF INVENTION: 1dentification and Verification of Methylation Marker Sequences FILE REPERBNCE: 1657/2032 CURRENT FILING DATE: 2003-12-16 PRIOR APPLICATION NUMBER: US 10/737,082 PRIOR PILING DATE: 2003-12-16 NUMBER OF SEQ ID NOS: 300 SOFTWARE: PatentIn version 3.2 SEQ ID NO 11 LENGTH: 11006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10262 TGTGGAGAAGATGTCATGAACTAACAAAGGACTCATGAGCACGTGTTTGTAGGAGTGAC 10321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9902 ATCCTAAGACGCACGAGCAGGGAAGCCAGCACTGGGGAAGTGGTGCTGGGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10022 AGGGAATTTACCAGCTGAAGAAAGCCTGCCGGCGAGAGCTACAAACTGAGGCAAGGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10082 TGCTCACACCCGAGGAGGTCGTGGACACGATCTTCCTCCTCGTGGATGAGAATGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GTAAGAGGGCAGAGATGGGGAGAGTGCTGTCCACTCTGCATCGCCACTTTCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCACGTCCTTGGGCAAGGCCCTCCACCTTCCAACCCTGGGGTCCTCATCTGTGAGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 AGGGAATTTACCAGCTGAAGAAGCCTGCCGGCGAGAGCTACAAACTGAGCAAGGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10202 GCACGICCTIGGGCAAGGCCCICCACCTICCAACCCIGGGGTCCICATCTGIGAGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGGAGAAGATGTCATGAACTAACAAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITGGAGTCAGGCAGGGAGTGATATATTGAGCTTCTCGTCCTAGTCTCAATTTCCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAAATGGGGGATAATAATAGTGGTTGAGAGGAATGAATAGGATAATGTGTTTTAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 11006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1103.4; DB 2:
Pred. No. 1.4e-299;
0; Mismatches 1;
                                          RESULT 2
US-10-737-082-11
US-10-737-082-11
Sequence 11, Application US/10737082;
Publication No. US20050130170A1
GENERAL INFORMATION:
APPLICANT: BAYER Healthcare LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       39.1%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1104; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
2821 G 2821
                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-737-082-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                2100
                                                                                                                                                                                                                                                                                                                                                            2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2460
                                                                                                      2820
                                           GCCTCCTCCTCCCCAAGGCATCCTCACCAGTGTCAACAGGAAAAATGGCAGCAAATA 1980
                                                                                                                                                                                                                                                1981 GGCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTT 2040
                                                                                                                                                                                                                                                                                                               2101 TCCTCTCTTTCCATACCCCCCAGTATGGACCTTCCACAAACTCCCAGCCATAAGCTG 2160
                                                                                                                                                                                                                                                                                                                                                                                                                        2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTTGACTGGGATTGTGGGCTGGGCTTCTAACTGCTGTGTGACCCCAAGACAGCCA 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAATAGATAGCTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGAC 2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGACTITGGGAGGCCGAGGGGGGTTCACCTGAGGTCAGGGGTTCAAGACCAGCCT 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTAAAAAATAATTGATTAGAAAAATATTGGCCAGGTGCAGCTCACACCTGCAATCC 2760
                                                             TCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTCCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGCAGGAGCAGGTCGGACTAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2461 AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAAACCTATTAACCCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTAAAAATAATTGATTAGAAAAATATTGGCCAGGTGCAGGTGCTCACACCTGCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGACTTTIGGGAGGCCGAGGTGGGTGATCACCTGAGGTCAGGGGTTCAAGACCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G 2821
                                           1801
                                                                                                                                                                                                                                 1981
                                                                                                                                                                                                                                                                                               2041
                                                                                                                                                                                                                                                                                                                            2041
                                                                                                                                                                                                                                                                                                                                                           2101
                                                                                                                                                                                                                                                                                                                                                                                                                       2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2821
              1741
                                                                                                                                                                   1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2521
```

8 6 8 6 8

ઠ

8 8 8

8 8

q

```
10441
                                                                                                                                                                                                                                                                                                                                                                                                                     10501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10561
                                                                                             TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG 10141
                                                                                                                                                   10681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10921
9962 CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC 1002;
                                                                                                                                                                                                           10202 GCACGTCCTTGGGCAAGGCCCTCCAACCTTGGAGGGTCCTCATCTGTGAGAAGGC 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10562 AGCCTCAGGGCTATGTGGGGAGAGAGCTGGATTGGAATACACACTTGAGCCCTCCAGGTC 10621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10983
                                                                                                                                300
                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                               099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                        TTTGGAGTCAGGCAGGGAGTGATATATTGAGCTTCTCGTCCTAGTCTCAATTTCCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCTCACACCCGAGGAGGTCGTGGACAGGATCTTCCTCCTGGTGGATGAGAATGGAGATG
                                                                                                                                GTAAGAGGGCAGAGAGATGGGGAGAGTGCTGTCCACTCTGCATCATCGCCACTTTCTGGCC
                                                                                                                                                                                  GCACGTCCTTGGGCAAGGCCCTCCACCTTCCAACCCTGGGGTCCTCATGTGTGAGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                           rccrcccrrecrcageccaecrercrcaaaceaerrrerreaaeereccerreeaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .0922 CAAGTGGGTGATGAAGATGCTGCAGATGGAACATGCAGCAGCAGCTGGCTCGGCTCAGCA
                                                                                                                                                                                                                                                                                                                                            TTTGGAGTCAGGCAGGGAGTGATATTGAGCTTCTCGTCCTAGTCTCAATTTCCCTCATC
                                                                                                                                                                                                                                                                                                                                                                                             TGGAAAATGGGGATAATAATAGTGGTTGAGGAATGAATAGGATAAGATGTATAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCATAGGGTAGACCTCCATTCAGGCTGCTTGGGCTTTCCTCCCTGTAGCCCCAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCTCAGGGCTATGTGGGGAGAGAGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAAAGAAAGCCCCTTAAAGGTGGCAGGAGACTCCTGGAGATTCAGACACCTGACAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAAGCTTGAGGTCTGAGACTGCAGGATAGTTGGCATAAGACGTGTAGGCGCATCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGGAGGTCTCTCCTCCTCCCCCAGACCCCAGGTCTCCCCTTCTTCTACATGACCACCTC
                                                                                                                                                                                                                                       TGTGGAGAAGATGTCATGAACTAACAAAGGGACTCATGAGCACGTGTTTGTAGGAGTGAC
                                                                                                                                                                                                                                                                                        TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10982 GAGACGGAAAGTGCCATGTTCTGA 11006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
US-10-027-632-134687
                           121
                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                              181
                                                                                                                                                                                    301
                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                            481
                                                    10022
                                                                                                        0082
                                                                                                                                241
                                                                                                                                                         10142
                                                                                                                                                                                                                                                                                                                                                                    10382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                a
                                                                                                g
                                                                                                                        ò
                                                                                                                                                      ద
                                                                                                                                                                                  ò
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                        ò
                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Based, Chris
APPLICANT: Beard, Chris
APPLICANT: Beard, Chris
APPLICANT: Burgess, Chris
APPLICANT: Burgess, Chris
APPLICANT: Burgess, Chris
APPLICANT: Harvey, Jeanne
APPLICANT: Lechner, John F.
APPLICANT: Li, Zheng
APPLICANT: Li, Zheng
TITLE OF INVENTION: 16s7/2035
CURRENT APPLICATION NUMBER: US/10/765,790
CURRENT APPLICATION NUMBER: US 10/737,082
PRIOR APPLICATION NUMBER: US 10/737,082
PRIOR PELING DATE: 2003-12-16
NUMBER OF SEQ ID NOS: 300
SOFTWARE: Patentin version 3.2
SEQ ID NO: 10.0
                                                                                                                                                                        GCAAAGAAAGCCCCTTAAAGGTGGCAGAGACTCCTGGAGATTCAGACACCTGACAGCC 10741
                                                                                                                                                                                                                                     10801
                                                                                                                    TCTCAGCTCCCACCAGCATTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA 10681
                                                                                                                                                                                                                                                                                        10861
             rccrccccrrdcrcagccagcrgrcrcrgaacgagrrrgrrgaaggrgcccgrcggga 10921
                                                                                                                                                                                                                                                                                                                                                                                             9902 ATCCTAAGACGCACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGGTGGTGGTGGGGGATGTGGGT 9961
                                                                                                                                                          840
                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                           GCAAGCTTGAGGTCTGAGACTGCAGGATAGTTGGCATAAGACGTGTAGGCGCATCCTGGG
                                                                                                                                                                                                                                                                               AGCGAGGTCTCTCCTCCTGCCCCCAGACCCAGGTCTCCCCTTCTTACATGACCACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGGGGTGAAGGTGGAGCTTTCAGGGTCTCCCGTCAATGCAGCTGAGTTTTCTTTGGC
                                                                                                                                                          GCAAAGAAAGCCCCTTAAAGGTGGCAGGAGACTCCTGGAGATTCAGACACCTGACAAGCC
                                                                                                                                                                                                              GCAAGCTTGAGGTCTGAGACTGCAGGATAGTTGGCATAAGACGTGTAGGCGCATCCTGGG
                                                                                                                                                                                                                                                              AGCGAGGICICICCICCIGCCCCCAGACCCAGGICICCCCTICIICIACAIGACCACCIC
                                                                                                                                                                                                                                                                                                                                                                    AGCCTCAGGCCTATGTGGGGAGAGAGCTGGCTTGGAATACACACTTGAGCCCTCCAGCTC
                                                                                                        TCTCAGCTCCACCCAGCATTTCCGTGGTACCATGCGCAAAAGTAAAACTTCAATTCATCA
                                                                                                                                                                                                                                                                                                                  TCCTCCCCTTGCTCAGGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCCTAAGACGCACACAGCCTGGGAAGCCAGCACTGGGGAAGTGGTGCTGAGGGATGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39.1%; Score 1103.4; DB 22; Length 11006; 99.9%; Pred. No. 1.4e-299; ive 0; Mismatches 1; Indels 0; G
                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGACGGAAAGTGCCATGTTCTGA 1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 11, Application US/10765790; Publication No. US20050130172A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.9
Matches 1104; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-765-790-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 11006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-765-790-11
                                                                                                                               10622
                                                                                                                                                                                                                                                                                                                                          10862
                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                               10982
                                                                             10562
                                                                                                                                                                                  10682
                                                                                                                                                                                                            841
                                                                                                                                                                                                                                     10742
                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                        .0802
                                                                                                                                                                                                                                                                                                                                                                                             10922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
                                                                                                       721
                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                  원
                                                  8 8
                                                                                                                          셤
                                                                                                                                                                             8 8
                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                           රු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                              ò
                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
1488 GGCAGGGGTGGGAGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCT 1547
         Sequence 134687, Application US/10027632 Publication No. US20030204075A9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 97.5%;
Matches 589; Conservative
                                             1668 GCCG 1671
                                                                      597 GCCG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Human
US-10-027-632-134687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1068
                                             ò
                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ያ
ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAGGCTCACCCAGGTTTCCAGGGTAGTAGGAGGGTCCCCTGGCTCAGCCTGCTCATG 1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCT 1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1548 CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGCAGATCACGAGGTCAGGAGAT 1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359 AACTGAGGGGTGAGGGTCCCACAGACCAAATCAGAAATGAGAACACAAAGACTGGTAGGA 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 134687, Application US/10027632

Publication No. US20020198371A1

GENERAL INPORMATION:

APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single Nucleotide

TITLE OF INVENTION: Polymorphisms in the Human Genome

FILE REFERENCE: 108827.129

CURRENT APPLICATION NUMBER: US/10/027,632

CURRENT APPLICATION NUMBER: US/0218,006

PRIOR PILING DATE: 2000-04-30

PRIOR PILING DATE: 2000-04-20

PRIOR APPLICATION NUMBER: US 60/198,676

PRIOR APPLICATION NUMBER: US 60/193,483

PRIOR PILING DATE: 2000-02-24

PRIOR PILING DATE: 2000-02-24

PRIOR PILING DATE: 2000-02-24

PRIOR PILING DATE: 1999-11-23

PRIOR APPLICATION NUMBER: US 60/156,358

PRIOR APPLICATION NUMBER: US 60/156,358

PRIOR PILING DATE: 1999-09-28

PRIOR PILING DATE: 1999-00-28

PRIOR PILING DATE: 1999-00-09

NUMBER OF SEQ ID NOS: 325700

SOFTWARE: PASESEQ for Windows Version 4.0

LEWARTH. 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCAGGCTCACCCAGGTTTCCAGGCTAGGAGGGT--CCTGGCTCAGCCTGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGGCTGCTGGGTTTGAAGTGGCCAACAGGGCATAGTCCATTTTGGAGGAGTCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1068 GGCTCGCTCAGCAGAGACGGAAAAGTGCCATGTTCTGAGGAGTCTGGGGGCCCCTCCACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTCTTCCCCTGGTGTTGACTTCCTGGCACCCCCTGTGCAGGGCTGAGTGGGGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGATGGTGAAGGGAATTCAGTTACTTTTCCTGTTCAGCCGCTCCTGGGAGGACTGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   299 TGGCTGGGTGGTTGTGGGGCTCCCACAGTTTCTGGGTGTTCTCAGTTGGAAGCAAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                419 GGCAGGGTGGGAGGGTGTTGAGACTGAAGAAAAAGGCAGGAGTTGCCGGGCACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCGCTCAGCAGAGACGGAAAAGTGCCATGTTCTGAGGAGTCTGGGGCCCCTCCACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGATGGTGAAGGGAATTCAGTTACTTTTCCTGTTCAGCCGCTCCTGGGAGGACTGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 19.8%; Score 559.6; DB 13; Length Best Local Similarity 97.5%; Pred. No. 8e-147; Matches 589; Conservative 1; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-027-632-134687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
```

```
1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACTCTTCCCCTGGTGTTGACTTCCTGGCACCCCCTGTGCAGGCCTGAGTGGGATGG 1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGGGCTGCTGGGTTTGAAGTGGCCAACAGGGCATAGTCCATTTTGGAGGAGTCCCTG 1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGATGGTGAAGGGAATTCAGTTACTTTTCCTGTTCAGCCGCTCCTGGGAGGACTGTGCCT 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGCTGGGTGGTGGGGGCTCCCACAGTTTCTGGGTGTTCTCAGTTGGAAGCAAGAGCC 1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CTCCAGGCTCACCCAGGTTCCAGGGTAGTAGGAGGGT---CCTGGCTCAGCCTGTCATG 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              119 CCCACTCTTCCCCTGGTGTTGACTTCCTGGCACCCCCTGTGCAGGGCTGAGTGGGATGG 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
TITLE OF INVENTION: Polymorphisms in the Human Genome
FILE REFERENCE: 108827.129
CURRENT FILING DATE: 2002-04-30
FRIOR PELICATION NUMBER: US 60/218,006
PRIOR PAPLICATION NUMBER: US 60/198,676
PRIOR FILING DATE: 2000-07-20
PRIOR FILING DATE: 2000-04-20
PRIOR PLICATION NUMBER: US 60/193,483
PRIOR FILING DATE: 2000-03-29
PRIOR FILING DATE: 2000-02-24
PRIOR FILING DATE: 1200-03-29
PRIOR PLING DATE: 1999-09-28
PRIOR PLICATION NUMBER: US 60/156,358
PRIOR PLICATION NUMBER: US 60/156,358
PRIOR PLICATION NUMBER: US 60/146,002
PRIOR PLING DATE: 1999-09-28
PRIOR FILING DATE: 1999-09-28
PRIOR FILING DATE: 1999-09-08
PRIOR FILING DATE: 1999-08-08
PRIOR FILING DATE: 1999-08-09
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAAGGCTGCTGGGTTTGAAGTGGCCAACAGGCATAGTCCATTTTGGAGGAGGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCAGGCTCACCCAGGTTTCCAGGGTAGTAGGAGGGTCCCCTGGCTCAGCCTGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GGCTCGCTCAGCAGAGACGGAAAAGTGCCATGTTCTGAGGAGTCTGGGGCCCCTCCACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATGGTGAAGGGAATTCAGTTACTTTTCCTGTTCAGCCGCTCCTGGGAGGACTGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 559.6; DB 17; Length 600; Pred. No. 8e-147; 1; Mismatches 10; Indels 4;
```

g

ò

d

ò

셤

ò

```
| SERERAL INFORMATION:
| GARBERAL INFORMATION:
| APPLICANT: Schlegel. Wilson
| APPLICANT: Endege, Wilson
| APPLICANT: Endege, Wilson
| APPLICANT: Endege, Wilson
| APPLICANT: Monahan, John
| TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
| TITLE OF INVENTION: HUMAN PROSTATE CANCER
| TITLE OF INVENTION: HUMAN PROSTATE CANCER
| TITLE OF INVENTION: HUMBER: US/10/357,930
| CURRENT APPLICATION NUMBER: US/10/357,930
| CURRENT APPLICATION NUMBER: 06/183,319
| PRIOR FILING DATE: 2003-02-16
| PRIOR PRIOR FILING DATE: 2000-02-17
| PRIOR PRIOR FILING DATE: 2000-05-25
| PRIOR PRIOR FILING DATE: 2000-05-25
| PRIOR PRIOR FILING DATE: 2000-06-09
| PRIOR FILING DATE: 2000-06-09
| PRIOR PRIOR PRIOR NUMBER: 60/219,307
| PRIOR PRILING DATE: 2000-07-18
| PRIOR PRILING DATE: 2000-07-18
| PRIOR APPLICATION NUMBER: 60/219,007
| PRIOR PRILING DATE: 2000-07-18
| PRIOR APPLICATION NUMBER: 60/219,007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1216
1145 TAGGAGGGT-CCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1217 GCACCCCCTGTGCAGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA 1276
                                                                                                                                                                         1097 ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1205 AIGITCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1157 TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCCACTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1145 TAGGAGGGT-CCCTGGCTCAGCCTGCTCATCCCCTTCTTCCCCTGGTGTTGACTTCCTG
                                                                                                             1217 GCACCCCCTGTGCAGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                            1277 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                                                                                                                                                                                                                                   1026 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 337; DB 20;
Pred. No. 8.5e-84;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 29199, Application US/10357930 publication No. US20040259086A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | NAME/KEY: misc_feature
| LOCATION: 1467, 1476, 1497
| OTHER INFORMATION: n = A,T,C or G
US-10-357-930-29199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11.9%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 99.7
Matches 348; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-357-930-29199/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                         엄
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WESULT 6
Sequence 23318/Application US/10357930
FUBLICARIT 8.20040259086A1
GENERAL INFORMATION:
APPLICANT: Schlegel. Robert
APPLICANT: Endege, Wilson
APPLICANT: Monahan, John
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND THERAPY OF
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND THERAPY OF
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND THERAPY OF
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND THERAPY OF
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND THERAPY OF
TITLE OF INVENTION WINDER: 09/785, 276
FRIOR RAPLICATION NUMBER: 09/785, 276
FRIOR FILING DATE: 2000-02-17
FRIOR FILING DATE: 2000-02-17
FRIOR FILING DATE: 2000-06-29
FRIOR FILING DATE: 2000-07-18
FRIOR FILING DATE: 2000-07-18
FRIOR FILING DATE: 2000-07-18
FRIOR FILING DATE: 2000-07-18
FRIOR APPLICATION NUMBER: 60/215, 281
FRIOR PAPELICATION NUMBER: 60/225, 281
FRIOR FILING DATE: 2000-07-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1265 ATGCTGCAGATGGACATGAATCCCAGCTGGCTCGCTCAGCAGAGACGGAAAAGTGCC 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1205 AIGTICTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG 1146
                                                                                                             1607
                                                                                                                                                                                                                                                1608 CGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATCA 1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1325 GGCCAGCTGTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1157 TAGGAGGGTCCCCTGGCTCAGCCTGCTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 1216
                                                                                                                                                                                                                                                                                                            1548 CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGAT
                                                                                                                                                                             479 CAYGCCTGTAATCCCAGCACTTTAGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1097 ATGITCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 337, DB 20; Length 1506;
Pred. No. 8.5e-84;
0; Mismatches 0; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 62232
SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
i_LOCATION: 1467, 1476, 1497
cother information: n = A,T,C or G
US-10-357-930-23318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 99.74
Matches 348; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                      GCCG 1671
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSE
SEQ ID NO 23318
LENGTH: 1506
                                                                                                                                                                                                                                                                                                                                                                                      1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    214
```

g

ઠ

g

ò

g

ð

```
; ORGANISM: Homo sapiens
US-09-764-855-328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
US-09-764-872-518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-764-872-518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1726
                                                                                                                                                                                                                                                         1606
                                                                                                                                                 셤
                                                                                                                                                                                     ò
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                      Sequence 39, Application US/10266103

Publication No. US20040242510A1

GENERAL INFORMATION:

APPLICANT: MATKONIC: SANFORD D.

TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DETECTING COLON CANCERS;

FILE REFERENCE: CWRU-P01-008

CURRENT APPLICATION NUMBER: US/10/266,103

CURRENT APPLICATION NUMBER: US/10/266,103

FRIOR FILING DATE: 2001-10-07

PRIOR FILING DATE: 2001-10-05

NUMBER: OF SEQ ID NOS: 51

SOFTWARE: PatentIn version 3.1

SEQ ID NO 39

LENGHT: 62520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29975 TGAGCCGAGATTGCGCCACTGCACTCCGGCCGCGCGAGAGTCCCGTCTCAAAAA 30034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29797 CGAGGCGGGCGGATCACGAGGTCAGGAGCTCGAGACCATCCTGGCTAACAC--GGTGAAA 29854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAAA 1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCCGTCTCTACTAAAAATACAAAAATCAGCCGGGTGAGGTGGCGGCGCCCTGTAGTCC 1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGGCCGAGCCTACAG 1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAGACTCCGTCTCAAAAA 1817
              1086 GCACCCCCTGTGCAGGGCTGAGTGGGGAAGGGCTGCTGCTGGGTTTGAAGTGGCCAA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1518 AAAAGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 9.8%; Score 277.2; DB 20; Length 62520; Best Local Similarity 88.6%; Pred. No. 5e-66; Matches 312; Conservative 0; Mismatches 38; Indels 2;
                                              1277 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 1325
                                                                  1026 CAGGGCATAGTCCATTTTGGAGGAGTCCCTGGGATGGTGAAGGGAATTC 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 328, Application US/09764855
Patent No. US20020119919A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REPRENCE: PA110
CURRENT APPLICATION NUMBER: US/09/764,855
CURRENT PILING DATE: 2001-01-17
Prior application data removed - consult PALM or file wrapper
NUMBER OF SEQ ID NOS: 334
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Homo sapiens
US-10-266-103-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-09-764-855-328/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 328
LENGTH: 32152
                                                                                                                                 RESULT 8
US-10-266-103-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1818
                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1758
              셤
                                            ઠે
                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

```
18165
                                                                                                                                                                                                                                                                                                                                                                                                                       18106 TAGCCGGGCGAGGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAAA 18047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18046 ATGGCGTGAAACCCCAGGGGGGGGGGGCTGCAGGGGCGAGATTGCGCCACTGCACTTCA 17987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13869 GAGGCGGGTGGATCATGAAGTGAAGAGAGACCATCCTGGTTGGCCGGGCGCGGTGG 13928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1726 ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCCACTGCACTCCA 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG 1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1606 ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAT 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1666 CAGCCGGGTGAGGTGGCGGGCGCTGTAGTCCCCAGCTACTCAGGAGGCTGAGGCAAGAGA 1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGCGTGAACCCCAGGGGCCGAGCCTAACCCGAGATTGCGCCACTGCACTCCA 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13989 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTAACAAAAATACAAAAAT
                                                                                                                             1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGG
                                                                                                                                                                                         18284 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCCGCTGG
                                                                                                                                                                                                                                                        1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                   1666 CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGG
                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 518 Application US/09764872

Sequence 518 Application US/09764872

SEQUENCE INFORMATION:
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVERTION: NUCLEIC ACIDS, Proteins, and Antibodies
FILE REFERENCE: PA125
CURRENT FILINO NUMBER: US/09/764,872

CURRENT FILINO DATE: 2001-01-17

Prior application data removed - consult PALM or file wrapper
NUMBER OF SEQ ID NOS: 957

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 518

LENGTH: 32152
                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
7
Length 32152;
Query Match 9.7%; Score 275; DB 9; Length 32 Best Local Similarity 88.1%; Pred. No. 1.4e-65; Matches 311; Conservative 0; Mismatches 40; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
9.7%; Score 275; DB 10; Length 3
Best Local Similarity 88.1%; Pred. No. 1.4e-65;
Matches 311; Conservative 0; Mismatches 40; Indels
```

```
9.7%;
                                                                                                            Query Match
Best Local Similarity 88.17
Matches 311; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
CORGANISM: Homo sapiens
US-10-242-355-840
                                    TYPE: DNA
CORGANISM: Homo sapiens
US-10-087-192-1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
US-10-242-355-840/c
                    LENGTH: 129042
SEQ ID NO 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 840
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
14107 ATGGCGTGAACCCCAGGGGGGGGGCCTGCAGTGAGCCGAGATTGCGCCACTGCACTCCA 14166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18106 TAGCCGGCGAGCTGGCGGCGCCTGTAGTCCCCAGCTACTCGGGAGGCTGAGGCAGGAGA 18047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18046 ATGGCGTGAACCCCAGGGGGGGGGGGCCTGCAGGTGAGCCGAGATTGCGCCACTGCACTTCA 17987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18164 ATCGAGACCATCCTGGCTAACAC--GGTGAAACCCCGTCTCTACTAAAAATTACAAAAAAT 18107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCCACTGCACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1486 GAGGCAGGGGTGGGGGGTGTTGAGACTGAAAAAGGCAGGAGTTGCCGGGCACGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18284 GAGGCGGGTGGATCATGAAGTGAAGAGATCAAGACCATCCTGGTTGGCCGGGCGCGGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                        2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 9.7%; Score 275; DB 14; Length 32152; Best Local Similarity 88.1%; Pred. No. 1.4e-65; Matches 311; Conservative 0; Mismatches 40; Indels 2;
                                                                                                                                                                                                                               APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PAL10C1
CURRENT APPLICATION NUMBER: US/10/072,349
CURRENT FILING DATE: 2002-02-11
Prior Application removed - See file Wrapper or Palm
NUMBER OF SEQ 1D NOS: 334
SOFTWARE: Patentin Ver. 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-10-087-192-1240
i Sequence 1240, Application US/10087192
i Publication No. US2002018286A1
i GENERAL INFORMATION:
    APPLICANT: Morris, David W.
    TITLE OF INVENTION: CANCER
    TITLE OF INVENTION: CANCER
    TITLE OF INVENTION: CANCER
    TITLE OF INVENTION: LANGER
    FILE REFERENCE: 5.99452000122
    CURRENT APPLICATION NUMBER: US/10/087,192
    CURRENT APPLICATION NUMBER: US 09/747,377
    PRIOR APPLICATION NUMBER: US 09/747,377
    PRIOR FILING DATE: 2000-12-22
    PRIOR FILING DATE: 2000-12-22
    PRIOR FILING DATE: 2001-03-02
    NUMBER OF SEQ ID NOS: 2059
    SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                    Sequence 328, Application US/10072349
Publication No. US20030054420Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                      US-10-072-349-328/c
                                                                                                                                                                                                                                                                                                                                                                                                              32152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-072-349-328
                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1666
셤
                                    ð
                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
```

```
123352 GAĞĞĞĞĞĞĞĞĞĞTĞATÇATĞAAĞTĞAAĞAĞATCAAĞACCATCCTĞGTİĞĞCCĞĞĞĞĞĞĞĞĞĞ 123411
                                                                                                                                                                                                                                                                                                                         1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: ROSEN et al.
TITLE OF INVENTION:
FILLE REFERENCE: PC003C1
CURRENT APPLICATION NUMBER: US/10/242,355
CURRENT FILLIG DATE: 2002-09-13
FRICA PAPLICATION NUMBER: 09/764,897
PRIOR PAPLICATION NUMBER: 09/764,897
PRIOR PLILING DATE: 2000-01-17
PRIOR PLILING DATE: 2000-01-31
PRIOR FILLING DATE: 2000-01-31
PRIOR FILLING DATE: 2000-02-48
PRIOR FILLING DATE: 2000-02-48
PRIOR FILLING DATE: 2000-02-48
PRIOR FILLING DATE: 2000-02-48
PRIOR FILLING DATE: 2000-05-28
PRIOR PLICATION NUMBER: 60/217,487
PRIOR PLILING DATE: 2000-07-11
PRIOR PLILING DATE: 2000-07-11
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLING DATE: 2000-07-14
                                                                                                                                                                                                                                                                                                                                                                               1606 ATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTAAAAATACAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123590 ATGGCGTGAACCCCAGGGGGCGGAGCCTGCAGTGAGCCGAGATTGCGCCACTGCACTCCA
                                                                                                                                                                                                                                                                                                                         1546 CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1666 CAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1726 ATGGCGTGAACCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCA
                                                                                                                                                                 1486 GAGGCAGGGGTGGGAGGGTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 129042;
Score 275; DB 13; Length 1
Pred. No. 3.1e-65;
0; Mismatches 40; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 840, Application US/10242355; Publication No. US20030235831A1; GENERAL INFORMATION:
```

```
38590 GGGGGAGCCTGCAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACAGCGACAGCGAG 38649
   GGGCCGAGCCTACAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGTGAG 1802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1592 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAAACCCCGTCTCTACTA 1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3621 CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GGTGAAACCCTGTCTCTACTA 3564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAATACAAAAATCAGCCGGGTGAGGTGGCGGCGCCTGTAGTCCCCAGCTACTCAGGAG 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3563 AAAATACRAAAAATTAGCCGGGCGAGGTGGCGGGCGCTGTAGTCCCAGCTACTCGGGAG 3504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGCCGAGCCTACAGTGAGCCGAGATTGC 1771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1532 GCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Charanas, Stephane
APPLICANT: Charanas, Stephane
APPLICANT: Cokson, William
APPLICANT: Woffat, Miriam
APPLICANT: Woffat, Miriam
APPLICANT: Walley, Andraw
TITLE OF INVENTION: SUSCEPTIBILITY GENE FOR NETHERTON'S DISEASE
FILE REFERENCE: 100317,70008.US
CURRENT APPLICATION NUMBER: US/10/220,510
CURRENT FILING DATE: 2000-03-03
PRIOR APPLICATION NUMBER: GB 0005098.9
PRIOR PAPLICATION NUMBER: GB 0005229.0
PRIOR APPLICATION NUMBER: GB 0005229.0
PRIOR PELING DATE: 2000-03-03
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
LENGTH: 7995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
9.7%; Score 272.6; DB 16; Length 7995;
Best Local Similarity 94.8%; Pred. No. 3.2e-65;
Matches 293; Conservative 0; Mismatches 14; Indels 2;
                                                                                                                                                                                      38650 ACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAA 38686
                                                                                                                            1803 ACTCCGTCTCAAAAAAAAAAAAGAAAGAAAA 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KRY: misc feature

COCATION: (7994)..(7995)

CTHER INFORMATION: n = a, c, g or t/u

US-10-220-510-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Search completed: June 29, 2005, 12:01:59 Job time: 1107.5 Rec8
                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/10220510
Publication No. US20030190637A1
GENERAL INFORMATION:
APPLICANT: Hoynanian, Alain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGAAAG 1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3383 AAAAAAAAG 3375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
      1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1772
                                                   셤
                                                                                                                            ò
                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     È
      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38530 GGGCGCTGTAGTCCCAGCTACTCCGGAGGCTGAGGCAGAGAATGGCGTGAACCCCAGG 38589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  38471
                                                                                                                                                                                                                                                                                                                                                                      GGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGG 1742
                                                                                                                            1572
                                                                                                                                                                                                                                                   GAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGG 1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCAGGGGGCCGAGCC 1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1753 TACAGTGAGCCGAGATTGCGCCCACTGCACTCGACGACGACAGTGAGACTCCGTCTC 1812
                                                                                                                                                                                      275
                                                                                                                                                                                                                                                                                                            217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37
                                                                                                                         1513 TGAAGAAAAGGCAGGAGTTGCCGGCCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGG
                                                                                                                                                                                                                                                                                      274 GAGGCCGAGGCGGGTGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC--GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATAAAATGCGAGGGAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCCAGCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96 recagricascociadarriscocoacrociación recasocos de descono de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38352 GTGGACAAAGTGGTGAAAGAAAATGATGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAACACGGGGTGAAACCCCGTCTCTACTAAAATACAAAAATCAGCCGGGTGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGTTGAGACTGAAGAAAAGGCAGGAGTTGCCGGGCACGGTGGCTCACGCCTGTAATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1563 AGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGC
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 273.4; DB 13; Length 238484; Pred. No. 1.2e-64; 0; Mismatches 31; Indels 2; Gay
                                                               2;
   DB 17; Length 335;
                                                               24; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 544, Application US/10087192

| Bublication No. US20020182586A1
| GENERAL INFORMATION:
| APPLICANT: Morris, David W. APPLICANT: Morris, David W. TITLE OF INVENTION: CANCER
| TITLE OF INVENTION: NOVEL COMFOSITIONS AND METHODS FOR TITLE OF INVENTION: NOVEL COMFOSITIONS AND METHODS FOR TITLE OF INVENTION: NUMBER: US/10/087,192
| CURRENT APPLICATION NUMBER: US/10/087,192
| CURRENT APPLICATION NUMBER: US 09/747,377
| PRIOR FILING DATE: 2000-03-01
| PRIOR FILING DATE: 2000-12-22
| PRIOR FILING DATE: 2001-03-02
| NUMBER OF SEQ ID NOS: 2059
| SUFFWARE FILING DATE: 2001-03-02
| NUMBER OF SEQ ID NOS: 2059
   Score 274.6; DB 17
Pred. No. 1.5e-66;
0; Mismatches 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAAAAAAAAGAAAGAAAGAAAA 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 AAAAAAAAAAAAAAAAAAAAAA 10
9.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 90.2°
Matches 304; Conservative
                               Best Local Similarity 92.0
Matches 301; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-087-192-544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 544
LENGTH: 238484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-087-192-544
                                                                                                                                                                                                                                                   1573
                                                                                                                                                                                                                                                                                                                                                                         1633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1623
      Query Match
                                                                                                                                                                         셤
                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

ઠે

This Page Blank (uspto)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM nucleic - nucleic search, using sw model

Run on:

June 28, 2005, 15:06:07; Search time 6070.87 Seconds (without alignments) 17687.639 Million cell updates/sec

US-08-731-499-6

Title: Perfect score:

1 ATCCTAAGACGCACAGCCTG.....AGGGGTTCAAGACCAGCCTG 2821 Sequence:

Gapop 10.0 , Gapext 1.0 IDENTITY NUC Scoring table:

34239544 seqs, 19032134700 residues Searched:

68479088 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

EST:* Database :

99b est1: 99b est2: 99b est4: 99b est4: 90b est6: 90b 9881:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	BX111942 BX111942	BM690083 UI-E-CK1-	BM690003 UI-E-CK1-	BQ637863 hd15e08.y	_	BQ447506 UI-H-EU1-	AW967092 EST379166	BM661803 UI-E-CK1-	BE220617 ht99c12.x	AI377509 tc37d08.x	BM688117 UI-E-CLO-	A1424326 te90c12.x	BM704154 UI-E-CK1-	AW002033 wt83d08.x	BM686135 UI-E-CK0-	AI306391 qn12f08.x	BM672390 UI-E-CL1-	BM701070 UI-E-CL1-	BI293114 UI-R-DK0-	AQ767124 HS 2206 B	H40682 yp50g05.81	AW136419 UI-H-BI1-	AA308846 EST179652	W27113 20d8 Human
ID	BX111942	BM690083	BM690003	BQ637863	BM662840	BQ447506	AW967092	BM661803	BE220617	AI377509	BM688117	A1424326	BM704154	AW002033	BM686135	AI306391	BM672390	BM701070	BI293114	AQ767124	H40682	AW136419	AA308846	W27113
8	S	4	4	S	4	S	~	4	7	Н	4	Н	4	7	4	-	4	4	4	œ	7	7	Н	7
Length DB	779	999	572	632	559	546	672	534	486	471	489	489	475	455	437	439	442	407	399	511	407	378	404	740
& Query Match	27.2	21.8	19.9	19.7	19.0	18.6	18.5	17.7	17.2	16.5	16.5	16.4	16.2	15.9	15.5	14.8	14.5	14.1	13.5	13.3	13.3	12.9	11.9	11.5
Score	166	615.4	560.8	555	537	524.6	520.8	500.2	486	466.8	464.8	461.8	456.4	448.8	436	418.2	408.6	397.2	380.8	376.4	374	363	335.8	325
Result No.	1	7	m	4	υ Ω	y U	7	œ U	0	c 10	11	c 12	13	c 14	15	c 16	c 17	18	c 19	20	c 21	c 22	23	24

W26445 29f7 Human	W27002 19h12 Human	W28792 52f3 Human	W27379 28cl Human	AA317761 EST19742	W26485 30c1 Human	W27135 22h4 Human	W28227 43h1 Human	AA317311 EST19308	W27109 20d3 Human	AQ184326 HS 3220 A	AA378172 EST90835	AL832942 Homo sapi	BQ429229 AGENCOURT	BU727375 UI-E-CQ1-	AQ199645 RPCI11-62	CR542495 DKFZp459J	CR542494 DKFZp459J	AQ627863 CITBI-E1-	BX493558 DKFZp781M	BM663617 UI-E-CK0-
W26445	W27002	W28792	W27379	AA317761	W26485	W27135	W28227	AA317311	W27109	AQ184326	AA378172	HSM804253	BQ429229	BU727375	AQ199645	CR542495	CR542494	AQ627863	BX493558	BM663617
7	-	^	^	Н	7	7	7	н	-	œ	Н	ო	Ŋ	Ŋ	æ	7	7	æ	Ŋ	4
456	608	782	579	331	829	483	843	342	760	532	267	5670	311	295	498	570	630	409	334	297
11.5	11.4	11.3	11.1	11.1	11.0	10.7	10.5	10.4	9.6	9.5	9.4	9.4	9.4	9.2	9.5	9.5	9.2	9.1	9.1	8.9
324.8	321.8	319	314.4	311.8	311	302.6	296.4	293.4	276	267.6	266	264.8	264.4	260.2	259.6	258.6	258.6	256.4	256.2	252.2
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
υ			U		υ	U	υ							υ					υ	U

ALIGNMENTS

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

(CB 1 (bases 1 to 779)

(CB Ebert, L., Hell, O., Hennig, S., Neubert, P., Partsch, E., Peters, M., Radelof, U., Schneider, D. and Korn, B.

(CADICACT: Ina Rolfs

(CADICACTION ROLFs

(CADICACT: Ina Rolfs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADICACTION ROLFs

(CADIC
                                                                                             EST 07-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /tissue_type="retina"
/dev stage="55 year old"
/lab_host="DHJD (ampicillin resistant)"
/clone_lib="Soares retina N2b4HR"
/note="Organ: eye; Vector: pT7T3D (Pharmacia) with a modified polylinker; Site 1: Not 1; Site 2: Eco RI; lst strand cDNA was primed with a Not I - olfgo(dT) primer [5'
                                                                                BX111942
BX111942 Soares retina N2b4HR Homo sapiens cDNA clone
IMAGp998H09360 ; IMAGE:190904, mRNA sequence.
                                                                                                                                                                                                                                                                  BX111942.1 GI:27878691
                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                     ACCESSION
RESULT 1
BX111942
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
```

```
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                    MEDLINE
PUBMED
COMMENT
              ACCESSION
                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2356
                                                                                                                                                                                                           1636
                                                                                                                                                                                                                                                                                                               1756
                                                                                                                                                                                                                                                                                                                                                                                                                    1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2056
                                                                                                                                                                                                                                                            1696
                                                                                                                                                                                                                                                                                                                                                                  GTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGACACAGTGAGACTCCGTCTAAAA 1816
119
                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             779
                                                                                                                                                                                                                                                                                                                                    CCAGCTACTCAGGAGGCTGAGGCAAGAATGGCGTGAACCCCCAGGGGCCCGAGCCTACA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                   29
                                                                                                                                                                                                                                                                                ACCCCGTCTCTACTAAAAATACAAAAATCAGCCGGGTGAGGTGGCGGCGCCCTGTAGTC
                                                                                                                                                                                                                                                                                                                                                                                         GTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGACGACAGAGACTCCGTCTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660 GGGCTGGGCTTGTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGNTTTGGATATTT
                                                                                                                                                                                                            CCGAGGCGGCCAGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGGGTGAA
                                                                                                                                                                                                                                                            CCAGCTACTCAGGAGGCTGAGGCAAGAGAATGGCGTGAACCCCCAGGGGCCGAGCCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                   300 TATAACTTCCGGGATGCTGAGGGCCGTTCATGGGGAGGACCCTGGCCTCCTCCTCCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATCCTCACCAGTGGTGACAGGAAAAATGGCAGCAAAATACGCTGCAGGCTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360 GGCATCCTCACCAGTGGTGTCAACAGGAAAAATGGCAGCAAATACGCTGCAGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTTCAGCTCTGCCTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTTCAGCTCTGCCTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCTCTGGGACCCCCTGCTGCCAACCCACTCCCCCCAACAATCCTCTTTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTCTGGGACCCCCTGCTGCCACCCACCACCCCCCCAACAATCCTCTTTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATCCCCCAGTATGGACCTTCCACACTCCCAGCCATAAGCTGAATGTTTCTCTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2177 GGATGGAGAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600 GGATGGAGAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCTGGGCTTCTAACTGCTGTGACCCAAGACAGCCACTTCTCCTCCTAACC
                                                                                                                                                                                                                                   cccaccccccacar-nccaccrcaccaccarccaccarccrccrccraccaccccaa
                                                                                                                                                                                 Gaps
                                                                                                                                                                                  ;;
                                                                                                                                                      27.2%; Score 766; DB 5; Length 779; 99.6%; Pred. No. 2.3e-126; Live 0; Mismatches 2; Indels
                                                                                                                                                                                 Matches 777; Conservative
                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                               1697
                                                                                                                                                                                                                                                                                                                                                                  1757
                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                    1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2237
                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                            1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1877
                                                                                                                                                         Query Match
                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

BM690083 668 bp mRNA linear EST 28-FBB-2002 UI-B-CK1-abr-f-10-0-UI.r1 UI-B-CK1 Homo sapiens cDNA clone

RESULT 2 BM690083 LOCUS DEFINITION

```
/downerson:9006.//
// (fissue_type="Retina Foveal and Macular")
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// dev stage="Mathia" |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc |
// desc 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        University of loward and the management of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861 GGGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCTG 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1921 GCCTCCTCCTCCCCAAGGCATCCTCACCAGTGGTGTCAACAGGAAAAATGGCAGCAAATA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             981 CGCTGCAGGCTGTGCTTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTT 2040
127 CGCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 668)
Bonaldo, M.P., Lennon, G. and Soares, M.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21.8%; Score 615.4; DB 4; Length 668; 97.0%; Pred. No. 1.6e-99; ive 0; Mismatches 12; Indels 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Coordinated Laboratory for Computational Genomics
UI-E-CK1-abr-f-10-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .668
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                   BM690083.1 GI:19003341
                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Soares, MB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 650; Conservative
                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
```

2101

셤 8 ద ઠે ያ ያ 2281

g ò 셤 ò 셤 δ 셤 8 유 ሯ 셤

```
/ncton=_norgan: eys. Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site 1: EcoR I; Site 2: Not I; U1-B-CK1 is a normalized CDNA library containing the following tiseue(s): Retina Foveal and Macular. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First eterand CDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded CDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand CDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is GTCC. This library was created for the program, Gene Discovery in the Visual System, supported by National
                                                               /clone="UI-E-CKX.-abq-g-05-0-UI"
/tissue_type="Retina Foveal and Macular"
/dav tages="adult"
/lab_host="DH/OB (Life Technologies) (Tl phage resistant)"
/clone_lib="UI-E-CKI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2085 ACCACTCCCCCAACAATCCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAAC 2144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127 AAAATGGCAGCAAATACGCTGCAGGCTGTGGTCTTTTTCTGCCTTTGAAAGGGTCAGCTGTA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 187 CTTAAAAGGACTGTTTCAGCTCTGGCTGCTGCTGCTGGGACCCCCTGCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            367 GCAAGAATTGGGGGACTGTTGACTGGGATTGTGGGCTTGGCTTCTAACTGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 GGGTTTTTGGGGGGGGGGGGGGGGAGTAATTCTATAACTTCCGGGATGCTGAGGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1905 CATGGGGAGCCCTGGCCTCCTCCTCCCCAAGGCATCCTCACCAGTGGTGTCAACAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67 cargogaggaccerocerecerecereceaaggcarecreaegaggaggaeaagga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1965 AAAATGGCAGCAAATACGCTGCAGGCTGTGGTCTTTCTGCCTTTGAAAGGGTCAGCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2025 CTTAAAGGGACTGTTTCAGCTCTGCCTGGGTGCTGCTCTGGGACCCCCTGCTGCCAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 ACCACTCCCCCAACAATCCTCTTTTCCATCCATATCCCCCAGTATGGACCTTCCACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAAGAATTGGGGGACTGTTGACTGGGATTGTGGGCTTGGCTTGGCTTCTAACTGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2265 TGACCCAAGACAGCCACTTCTCCTCCTAACCTTGGTTATGTCTTGGCAGCAGAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427 TGACCCCAAGACAGCCACTTCTCCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              487 AGGICGGACIANGCGAACAGITITIGGATIATIGIGITITITAGAIGIGGAATIATITIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1845 GAGTITIGGGGGCCAGGGGCCAGCAATAATICTATAACTICCGGGATGCTGAGGGGCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 19.9%; Score 560.8; DB 4. Best Local Similarity 99.3%; Pred. No. 9.1e-90; Matches 562; Conservative 0; Mismatches 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTATATAAACTCTTATGTGTAACCCC 2410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                632 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eye Institute (NEI)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTATATAACTCTTATGTGNTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
BQ637863
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Coordinated Laboratory for Computational Genomics
Coordinated Laboratory for Computational Genomics
University of Iowa
375 Newton Road , 4156 MEBRF, Iowa City, IA 52242, USA
Tel: 319 335 8250
Fax: 319 335 9565
Email: bento-soares@uiowa.edu
Tissue Procurement: Dr. Gregg Hageman
cDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com).
Seg primer: M13 Reverse.
                                                                                                                                                       2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM690003 572 bp mRNA linear EST 28-FBB-2002
UI-E-CK1-abq-g-05-0-UI.rl UI-E-CK1 Homo sapiens cDNA clone
UI-E-CK1-abq-g-05-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTTGACTGGGGATTGTGGGCTGGGCTTTGTAACTGCTGTGTGACCCAAGACAGCCA 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCTCCTCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGGAGCTG 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2461 AGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAAACCAGTGCCCTGGG 2520
                                                                                                                                                                                               247 TCCTCTCTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTG 306
                                                                                                                                                                                                                                                                                                                                              AATGTTTCTCTTTAAAGGATGGAGAAAACT----TCTGTCTCTGGCAAGAATTGGGGGAC 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423 CITCTCCTCAACCTIGGITAIGICTIGGCAGCACAGGGGGGGGGAGGCGAGGGGGGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 572)

Bonaldo,M.F., Lennon,G. and Soares,M.B.

Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                      543 GIGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               603 AGTACCTCTGGAACTGGAGGCACTCTGTAAAA----ACAACTGANAACAGTGCCCTGGG
                                                                       TCCTCTCTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGGCCATAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM690003.1 GI:19003261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Soares, MB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCACTGTTAC 2530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8889548
                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2221
2041
                                                                                                                                                                                                                                                                                                      2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2521
```

VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS TITLE

JOURNAL MEDLINE PUBMED COMMENT

LOCUS

RESULT 3 BM690003

ACCESSION

source

FRATURES

1964

99

126

ö

2024

2084

246

2204

366

306

2264

426

2324

486

2384

1456

485

425

```
University of loward 1956 MEBRF, lowa City, IA 5242, USA Tel: 319 335 8250
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 335 9565
Fax: 319 935 9565
Fax: 319 935 9565
Fax: 319 956 960
Fax: 319 956 960
Fax: 319 960 960
Fax: 319 960 960
Fax: 319 960 960
Fax: 319 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960 960
Fax: 310 960
Fax: 310 960 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db xref="taxon:9606"
/clone="U.T-E-CXO-aam-b-12-0-UI"
/tissue_type="Retina Foveal and Macular"
/dev stage="adult"
/lab_host="DHOB (Life Technologies) (T1 phage resistant)"
/clone_lib="U1-E-CXO"
/note="Organ: eye, Vector: pT713-Pac (Pharmacia) with a modified polylinker; Site_1: ECOR I; Site_2: Not I;
U1-E-CXO is a cDNA library containing the following
                                                               1217 GCACCCCCTGTGCAGGGCTGAGTGGGGATGGGGAAGGGGCTGCTGGGTTTGAAGTGGCCAA 1276
                                                                                                                                                                                                                                                                                                                                                           CTGTTCAGCCGCTCCTGGGAGGACTGTGCCTTGGCTGGGTGGTTGTGGGGCTCCCACAGT 1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        486 Tricrigistricricastricanascansascicancirsassistas sas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546 ATCAGAAATGAGAACACAAAAGACTGGTAGGAGGCAGGGTGGGAGGGTGGTGAGACTGAA 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi; Mammalia; Eutheria, Primates; Catarrhini, Hominidae, Homo. I (bases I to 599)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                            306 GCACCCCTGTGCAGGCTGAGTGGGGATGGGGAAGGGCTGCTGGGTTTGAAGTGCCCAA
                                                                                                                                                                                                                                                          TTCTGGGTGTTCTCAGTTGGAAGCAAGAGCCAACTGAGGGGTGAGGGTCCCCACAGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                              crerrcaeccecrccreasacsacrereccrrascrassrasrasrasses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1457 ATCAGAAATGAGAACACAAAGACTGGTAGGAGGCAGGGGTGGGAAGGGTGTTGAGAACTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM662840
UI-E-CKO-aam-b-12-0-UI.sl UI-E-CKO Homo sapiens cDNA clone
UI-E-CKO-aam-b-12-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Soares, MB Coordinated Laborators Coordinated Laboratory for Computational Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1517 GAAAAGGCAGGAGTTGCCGGGCACGGT 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  606 GAAAAGGCAGGAGTTGCCGGGCACGGT 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM662840
BM662840.1 GI:18967679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8889548
                                                                                                                                                                                                                                                                                                                                                           1337
                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1397
                                                                                                                                                                                                                    1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
BM662840/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /dev stage="Adult."
//dev stage="Adult."
/lab host="EMDH108"
/clon lib="Human Retina cDNA (Un-normalized,
unamplified): hd/hm setina cDNA (Un-normalized,
unamplified): hd/hm setina cDNA (Un-normalized,
unamplified): hd/hm sy vector: pSPORT1; Neural retina tissue
was dissected from two 80 year old donors with no observed
eye disease. 100ug of total RNA was used for library
construction. A directionally cloned cDNA library in the
pSPORT1 vector (Life Technologies) was constructed at
Bloserve Blotechnology (Laurel MD) essentially following
the protocols of the SuperScript Plasmid System full
details of which are contained in the manufacturer's
Instruction manual (http://www.lifetech.com/). First
strand synthesis was carried out using a Not I
                                                                                                                                                                                                                                                                                                                                                                                        Wistow,G., Bernstein,S.L., Wyatt,M.K., Ray,S., Behal,A.,
Touchman,J.W., Bouffard,G., Smith,D. and Peterson,K.
Expressed sequence tag analyais of human retina for the NEIBank
Project: Retbindin, an abundant, novel retinal cDNA and alternative
splicing of other retina-preferred gene transcripts
Mol. Vis. 8 (4), 196-204 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCAGCTGTCTCTCTGAACGAGTTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGATGAAG 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1097 ATGTTCTGAGGAGTCTGGGGCCCCTCCACGACTCCAGGCTCACCCAGGTTTCCAGGGTAG 1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1157 TAGGAGGGTCCCCTGGCTCAGCCTGTCATGCCCCACTCTTCCCCTGGTGTTGACTTCCTG 1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [5'-pGACTAGTTCTAGATCGCGAGCGGCCCC(T)15-3']. EST analysis was performed on the unamplified library at the NIH Intramural Sequencing Center (NISC)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCAGCTGTCTCTGAACGAGTTGTTGAAGGTGCCCGTCGGGACAAGTGGGTGAAGTGAAG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 TAGGAGGGT-CCCTGGCTCAGCTCGTCATGCCCACTCTTCCCCTGGTGTTGACTTCCTG 305
                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
hd15e08.y1 Human Retina cDNA (Un-normalized, unamplified): hd/he
Homo sapiens cDNA clone hd15e08 5', mRNA sequence.
BQ637863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
19.7%; Score 555; DB 5; Length 632;
Best Local Similarity 99.8%; Pred. No. 9.7e-89;
Matches 566; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Section on Molecular Structure and Function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               National Eye Institute
6/331, NIH, Betheeda, MD 20892-2740, USA
Tel: 30 1402 3452
Fax: 301 496 0078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: graeme@helix.nih.gov
Plate: 15 row: e column: 08
Seg primer: M13RP1 reverse primer (ABI).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="hd15e08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tissue_type="Retina"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                             BQ637863.1 GI:21762322
                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 632)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Wistow G
                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22103461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12107411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                     DEFINITION
                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
PUBMED
COMMENT
                                                                                                            ACCESSION
                                                                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                    SOURCE
```

셤 ò g ઠે g à Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.inh.gov
Trissue Procurement: Dr. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be obtained
from Dr. M. Bento Soares, bento-soares@uiowa.edu
POLYA-YES.

/ml_type="mRNA" /db_xref="taxon:9606" /clone="VI-H-EVI-bae-m-11-0-VI" /tissue_type="Osteoarthritic Cartilage"

cocation/Qualifiers 1. .546 /organism="Homo sapiens"

FEATURES

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
I (basea 1 to 58.)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),

Tumor Gene Index Unpublished (1997)

JOURNAL

COMMENT

REFERENCE AUTHORS TITLE

Thu

```
tissue(s): Retina Foveal and Macular. The library was constructed according to Bonaldo, Lemnon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA grotheeds was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, dispested with Not I, and cloned directionally into pT/T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)! B tail. The sequence tag for this library was created for the program, Gene Discovery in the Visual System, supported by National Eye Institute
                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCGAACAGTTTTGGATTATTGTGTTTTTAGATGTGGGAATTATTTTTGTTATATAAAC 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTATGTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGG 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  320
                                                                                                                                                                                                                                                                                                                                                                                                                                 559 CAACAATCCTCTTTCCATCCATATCCCCCAGTATGACCCTTCCACAACTCCCAGCCAT 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGACTGTTGACTGGGATTGTGGCTTGGCTTCTCTAACTGCTGTGTGACCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCACTTCTCCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCACTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACCAGTGAGCAGGTCGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTATGTGTAACCCCCAATATAGAAACTAAATTAAAAGGGAGTCTCTCTGGTTGAAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    139 CCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGAGACCTGGAAAAAACATTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79 TACCTTGAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAAACC
                                                                                                                                                                                                                                                                                                                                                                                                  CAACAATCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAAACATTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACCTTGAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTAAACCTATTAACCC
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                          Score 537; DB 4; Length 559;
Pred. No. 1.6e-85;
0; Mismatches 5; Indels
                                                                                                                                                                                                                                   TAG TISSUE=Foveal and Macular Retina
TAG_LIB=UI-E-CK0
TAG_SEQ=GTCC"
                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 99.1%;
Matches 540; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                2095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
BQ447506/c
LOCUS
                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                               쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

```
/dew_stage="Deceding to Cartinage".
//dew_stage="Deceding to Cartinage".
//lab_host="DH10B (Life Technologies)"
//clone_lbb="NCI_CGAP_Ctl"
//note="Organ: Knee; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I; MCI_CGAP_Ctl is a normalized cDNA library containing the following tissue(s): Osteoarthritic Cartilage The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dr primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT) a tail. The sequence tag for this library is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATTATTGTGTTTTTAGATGTGGAATTATTTTTTGTTATATAAACTCTTATGTAAACC 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAATATAGAAACTAGATTAAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCT 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366 CCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTT 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426 GGGATTGTGGGCTTGGCTTCTAACTGCTGTGTGACCCCAAGACAGCCACTTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546 Trccarccararcccccagrargaccrrccacaacrcccagccaraacrgaargrrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          486 TCTTTAAAGGATGGAGAAAACTTCTGTCTGTCTCTCGGCAAGAATTGGGGGACTGTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGATTGTGGGCTTGGCTTCTAACTGCTGTGACCCAAGACAGCCACTTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2109 TICCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTGAATGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTTAAAGGATGGAGAAACTTCTGTCTGTCTGTCTGGCAAGAATTGGGGGACTGTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                            TGATCACGCT.
TAG_TISSUE=osteoarthritic cartilage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 18.6%; Score 524.6; DB 5; Best Local Similarity 99.2%; Pred. No. 2.6e-83; Matches 527; Conservative 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rag_SEQ=TGATCACGCT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

BQ447506 546 bp mRNA linear EST 29-MAY-2002 UI-H-EUI-bae-m-11-0-UI.81 NCI_CGAP_Ctl Homo Bapiens cDNA clone UI-H-EUI-bae-m-11-0-UI 3', mRNA sequence.

DEFINITION

BQ447506 BQ447506.1 GI:21250611 EST.

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

Homo sapiens (human) Homo sapiens

유

셤

8

ò

원

```
l. .534
/organism="Homo sapiens"
/mol_type="maxns"
/mol_type="maxns"
/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/db xref="raxns">/de"/dlone="UI=E-CKI-abr-f-10-0-UI"
/tissue type="mathing Foveal and Macular"
/dab_host="DH10B (Life Technologies) (T1 phage resistant)"
/dlone="Dryan: eye; Vector: pT773-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I;
UI-E-CKI is a normalized CDNA library containing the following tissue(8): Retina Foveal and Macular. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT773-pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
Coordinated Laboratory for Computational Genomics
University of Iowa
375 Newton Road, 4156 MEBRP, Iowa City, IA 52242, USA
Tel: 319 335 8250
Fax: 319 335 8265
Email: bento-soares@wiowa.edu
Tissue Procurement: Dr. Gregg Hageman
CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com).
Seg primer: M13 Forward
POLYA=Yes.
                                                                                                 AGGGGAGCTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAAACCA 2510
                                                                                                                                                                                                     2511 GTGCCCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAAAACATTT 2570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST 27-FEB-2002
2391 AAACTCTTATGTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAA 2450
                            301 AAACTCTTATGTGTAACCCCCAATATAGAAACTAGATTAAAAGGGGGTCTCTCTGGTTGAA 360
                                                                                                                           361 AGGGGGAGCTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGGAAACTGAAAAACCA 420
                                                                                                                                                                                                                                  421 GTGCCCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGAGACCTGGAAAAACATTT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 534) Bonaldo, M.F., Lennon, G. and Soares, M.B.
                                                                                                                                                                                                                                                                                                         2571 GCTTTACCTTGAATAGATAGGTTTTTATGTTGGTATAT-AAGAAATAAAACTAACC 2625
                                                                                                                                                                                                                                                                                                                                    481 GCTTTACCTTGAATAGATAGGGTTTTATGTTGGGATATAAAGAAATAAAACTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM661803 534 bp mRNA linear EST 27.
UI-E-CK1-abr-f-10-0-UI.81 UI-E-CK1 Homo sapiens CDNA clone
UI-E-CK1-abr-f-10-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM661803.1 GI:18965842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM661803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST.
                                                                                                      2451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
BM661803/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                            g
                                                                                                                                                   셤
                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                    ò
                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2271 AAGACAGCCACTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCG 2330
                            2528
                                                                                                                                                                                                                                                                                                                                                                                             AW967092 672 bp mRNA linear EST 01-JUN-2000
EST179166 MAGE resequences, MAGJ Homo sapiens cDNA, mRNA sequence.
AW967092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2529 ACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTTGAATAGAT 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186 CTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAATCAGTGCCCTGGGTCACTGTT 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
I (bases 1 to 672)
Hegde, P., Qi, R., Abernathy, K., Dharap, S., Gaspard, R., Gay, C., Holt, I.E., Saeed, A.I., Sharov, V., Lee, N.H., Yeatman, T.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Assessment of gene expression patterns in a model of colon tumor metastasis using a 19,200 element cDNA microarray Unpublished (2000)

Unpublished (2000)

Unpublished (2000)

Unpublished (2000)

The Institute for Genomic Research

9712 Medical Center Dr., Rockville, MD 20850, USA

Tel: 301 838 9228

Email: johng@tigr.org
                                                                                                                                                           2469 CTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCCCAACAATCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 cccccaacaarccrcrrrrccarccararcccagrarggaccrrccacaacrcccag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arrigegeaetrerecreesarreresecreesecriesecriciaacreerererere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                  2589 AGGITITIAIGITGGIATATAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                            AGGTTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAAACCTGAAA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 18.5%; Score 520.8; DB 2; Length 672; Best Local Similarity 99.4%; Pred. No. 1.2e-82; Matches 533; Conservative 0; Mismatches 2; Indels 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .672
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone_lib="MAGE resequences, MAGJ"
/note="Vector: pBluescriptSKm"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AW967092.1 GI:8156928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seq primer: Reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quackenbush, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                           RESULT 7
AW967092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
```

g

ò

g ò 셤 ò q ò

ઠે

ઠે 셤 Š g ઠ g ઠે g ઠે 셤 δ 셤 ò 엄 ઠે 名 ሯ g

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
site and the (dT)18 tail. The sequence tag for this library is GTCC. This library was created for the program, Gene Discovery in the Visual System, supported by National Eye Institute (NEI).
TAG TISSUE-Foveal and Macular Retina
TAG_ESSUE-Foveal TAG_ESCUE.
TAG_ESCUE.
                                                                                                                                                                                                                                                                                                                               2236
                                                                                                                                                                                                                                                                                                                                                                                                      2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE220617 486 bp mRNA linear EST 03-JUL-2000
ht99c12.xl NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3165238 3',
                                                                                                                                                                                                                     ï
                                                                                                                                                                                                                                                        2176
                                                                                                                                                                                                                                                                                           475
                                                                                                                                                                                                                                                                                                                                                                    419
                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298 GIGITITIAGAIGIGGAATTATTITITITIATATAAACTCTTATGTGAAACCCCCAATATA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   238 GAAACTAGATTAAAAGGGAGTCTCTCGGTTGAAAGGGGAGCTGAGTACCCTCTGGAACT 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. I toases I to 486. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Β.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GIGTTTTTAGATGTGGAATTATTTTTTGTTATATAAACTCTTATGTGTAACCCCAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Robert Strausberg, Ph.D.
Email: cgapbe romail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                           GGATGGAGAAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTGT
                                                                                                                                                                                                                                                                                                                                                                                                      GGGCTGGGCTTGGTTCTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCTGGGCTTCTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCCTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rrecritarercriteccaecacaercaercaerceaecraeccaacaerritaearrarr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178 GGAGGCACCTCTGTAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2117 ATATCCCCCAGTATGGACCTTCCACAACTCCCAGGCCATAAGCTGAATGTTTCTCTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACTCCTAT
                                                                                                                                                                                                                                                                                                                                                  474 GGATGGAGAAAACT----TCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      118 PAGACAGTITIVAAAGTGAGACCTGGAAAACATITGCTTTACCTTGAATAGATAGGTTTTT
                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                     4,
                                                                                                                                                                               Length 534;
                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA Library Preparation: M. Bento Soares, Ph.D. cDNA Library Arrayed by: Greg Lennon, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTTGGTATATAAGAAATAAAACTAACCTATTAAACCTGAAA 16
                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                   .
;
                                                                                                                                                                               Score 500.2; DB 4
Pred. No. 5.9e-79;
                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BE220617.1 GI:8908020
                                                                                                                                                                               17.7%;
98.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BE22061
                                                                                                                                                                                                Best Local Simi
Matches 516;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  358
                                                                                                                                                                                                                                                                                                                             2177
                                                                                                                                                                                                                                                                                                                                                                                                    2237
                                                                                                                                                                                                                                                                                                                                                                                                                                         418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28
                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
BE220617/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                          ORIGIN
```

```
/lab host="DH10B" CGAP Lu24"
/clone lib="NCI_CGAP Lu24"
/clone lib="NCI_CGAP Lu24"
/clone = Torgan: lung; Vector: pT/T3D-Pac (Pharmacia) with a modified polylinker; Plaamid DNA from the normalized library NCI_CGAP Lu5 was prepared, and 8s circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (cloneIDs 1414920-1411991 and 1520904-1522439). Subtraction by Bento Soares and M. Fatima Bonaldo.
DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL, send email to:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 18-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        186 regricada de de de de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra della c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AI377509 471 bp mRNA linear EST 18-MAR-1
tc37d08.x1 Soares total fetus Nb2HF8 9w Homo sapiens cDNA clone
IMAGE:2066799 3' Bimilar to contains element MBR22 repetitive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426 TGGCAAGAATTGGGGGACTGTTGACTGGGATTGTGGCTGGGCTTCTAACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366 TGTGACCCAAGACAGCCACTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGAGACACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2443 TGGTTGAAAGGGGAGCTGAGTACCCTCTGGAACTGGAGGCACCTCTGAAAAAAGCAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126 GAAAACCAGTGCCCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2203 TGGCAAGAATTGGGGGACTGTTGACTGGGATTGTGGGCTGGGCTTGGCTTCTAACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGACCCAAGACAGCCACTTCTCCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306 GCAGGTCGGACTAGGCGAACAGTTTTGGATTATTGTGTTTTTTAGATGTGGAATTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2383 TGTTATATAAACTCTTATGTGTAACCCCAATATAGAAACTAGATTAAAAGGGAGTCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246 TGTTATATAAACTCTTATGTGTAACCCCAATATAGAAACTAGATTAAAGGGGGGTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2503 GAAAACCAGTGCCCTGGGTCACTGTTACTCCTATAAGACAGTTTAAAGTGAGACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2563 AAACATTTGCTTTACCTTGAATAGATAGGTTTTTATGTTGGTATATAAGAAATAAAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66 AAACATTTGCTTTACCTTGAATAGATAGGTTTTTTATGTTGGTATATAAGAAATAAAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17.2%; Score 486; DB 2; Length 486;
100.0%; Pred. No. 2e-76;
.ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:3165238"
/tissue_type="carcinoid"
                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                                                                                                       info@image.Ilnl.gov
Seg primer: -40UP from Gibco
High quallity sequence stop: 450.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 486; Conservative
                                                                                                                                                                                                                                                                                                                                                         1. .486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2623 ACCTAT 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 ACCTAT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A1377509/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
                                                                                                                                                                                                                                                                                               FEATURES
```

element ;, mRNA sequence.

α

```
/dev stage="numan retina"
//dev stage="adult"
//lab_host="bH10B (life Technologies) (T1 phage resistant)"
//clool_lib="U1-B-CLO"
//clool_lib="U1-B-CLO"
//note="Organ: ey; Vector: pT7T3-Pac (Pharmacia) with a
modified polylinker; Site_1: EcoR I; Site_2: Not I;
U1-E-CLO is a cDNA library containing the following
tissue(s): retina. The library some Research, 6:791-806,
1996: First strand cDNA synthesis was primed with an
oligo-dr primer containing a Not I site. Double stranded
cDNA was ligated to an EcoR I adaptor, digested with Not
I, and cloned directionally into pT7T3-Pac vector. The
oligonucleotide used to prime the synthesis of
first-strand cDNA contains a library tag sequence that is
located between the Not I site and the (dT)18 tall. The
sequence tag for this library is CCGCG. This library was
created for the program, Gene Discovery in the Visual
System, supported by National Eye Institute (NEI)."
                                                                                                                                                                                                        BM688117 489 bp mRNA linear EST 28-FEB-2002 UI-E-CLO-abx-a-05-0-UI.rl UI-E-CLO Homo sapiens CDNA clone UI-E-CLO-abx-a-05-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2172 TTAAAGGATGGAGAAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGG 2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA 7761: 319 335 8260 Fax: 319 335 8265 Email: bento-soares@uiowa.edu Tisaue Procurement: Dr. Gregg Hageman CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa Clone Distribution: Researchers may obtain clones from Research Genetics (www.resigen.com).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2232 ATTGTGGGCTGGGCTTGTTGTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCC 2291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 489)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 Tradaccarcacadada cricicio crescio con contración de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de contractor de con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 489;
51 AGGITITITATGITGGTATATAAGAAATAAAACTAACCTATIAAACCTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.5%; Score 464.8; DB 4; Length 99.6%; Pred. No. 1.2e-72; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="UI-E-CL0-abx-a-05-0-UI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'tissue_type="human retina"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l. 489
/organism="Homo_sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genome Res. 6 (9), 791-806 (1996)
97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                              BM688117.1 GI:19001375
                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similaria,
Matches 466; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     discovery
                                                                                                                                                                                                                                                                                                                             BM688117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8889548
                                                                                                                                                                                                                                                                                                                                                                                                   EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                              RESULT 11
                                                                                                                                                                                  BM688117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /done lib="Scares total fetus Nb2HP8 9w" displays followed lib="Scares total fetus Nb2HP8 9w" displays for the strand constitution of the strand constitution of the strand constitution of the strand constitution of the strand constitution of the strand constitution of the strand constitution of the strand constitution of the stranded of stranded of stranded constitution of the stranded of stranded of stranded constitution, and was constructed by Bento Soares and M. Fatima Bonaldo. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTT 2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2529 ACTCCTATAAGACAGTTTAAAGTGAGACCTGGAAAAACATTTGCTTTACCTTGAATAGAT 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351 CCCTAACCTTGGTTATGTCTTGGCAGCAGTGAGCAGGTCGGACTAGGCGAACAGTTTT 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 CCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCT 172
                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

(Dases 1 to 471)

NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL ; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Insert Length: 816 Stror: 0.00
Seq primer: -400P from Gibco
High quality sequence stop: 428.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTTAAAGGATGGAGAAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2229 GGGATTGTGGGCTGGGCTTGTAACTGCTGTGTGACCAAGACAGCACCTTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             411 GGGATTGTGGGCTGGGCTTGTTGTGTGTGTGACCCCAAGACAGCCACTTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2349 GGATTATTGTGTTTTTAGATGTGGAATTATTTTTTTGTTATAAAACTCTTATGTGAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAATATAGAAACTAGATTAAAAGGGAGTCTCTCTCTGGTTGAAAGGGGGGCTGAGTACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cregaacregaececrercaaaaaaccaaacreaaaccaereceereecregercacrerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rcririaaaggarggaganaacricrgrcrgrcrcrgggaaarrggggagagrgrrgagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2589 AGGTTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 466.8; DB 1; Length 471;
Pred. No. 5.4e-73;
0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2066799"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dev stage="8-9 weeks"
lab_host="DH10B"
                                           AI377509.1 GI:4187362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 99.4%;
Matches 468; Conservative (
                                                                                                             sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .471
                                                                                                                                                  Homo sapiens
                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2169
                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
                                        VERSION
KEYWORDS
SOURCE
       ACCESSION
                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

ö

2354

310

370

ö

430

2414

2474

2534

2594

2

셤

Š 셤 ò 셤

δ

셤

ઠે

셤

ઠે

a

ઠે

```
2235 GIGGGCIGGGCIIGGCIICIPAACIGCIGIGIGACCCAAAGACAGCCACIICICCICCCIAA 2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: bento-soares@uiowa.edu
Tissue Procurement: Dr. Gregg Hageman
CDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309 TIGIGITITITAGAIGIGGAATIAITITITITATATAAACTCTTAIGIGTAACCCCAAIA 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249 TAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGGAGCTGAGTACCCTCTGGAA 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189 CTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACTCCT 130
    reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (cloneIDs 985608-986759, 1101192-1101959, and 1217938-1220615). Subtraction by Bento Soares and M. Fatima Bonaldo. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 475)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369 CCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2175 AAGGATGGAGAAAACTTCTGTCTGTCTCTGGCAAGAATTGGGGGACTGTTGACTGGGATT
                                                                                                                                                                                                                                                                             489 AAGGATGGAGAAAACTTCTGTCTGTCTCTCGCCAAGAATTGGGGGACTGTTGACTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                          429 GTGGGCTGGGCTTGGCTTCTAACTGCTGTGTGACCCCAAGACAGCCACTTCTCCTCCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2355 TTGTGTTTTTAGATGTGGGAATTATTTTTGTTATAAAACTCTTATGTGTAAACCCCAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2415 TAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2475 CTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM704154 linear EST 28-
UI-E-CK1-afi-p-12-0-UI.rl UI-E-CK1 Homo sapiens cDNA clone
UI-E-CK1-afi-p-12-0-UI 5', mRNA sequence.
                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        University of Iowa
375 Newton Road , 4156 MEBRF, Iowa City, IA 52242, USA
781: 319 335 8256
Fax: 319 335 9565
                                                                                                                                                  Length 489;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTATGTTGGTATATAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATGTTGGTATATATAAGAATAAAACTAACCTATTAAACCTGAAA 25
                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
                                                                                                                                                  DB 1;
                                                                                                                                             Score 461.8; DB 1
Pred. No. 4.2e-72;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome Res. 6 (9), 791-806 (1996) 97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM704154
BM704154.1 GI:19017412
                                                                                                                                                  16.4%;
99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM704154
UI-E-CK1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST.
                                                                                                                                                                                               Matches 463;
                                                                                                                                                                                                                                                                                                                                                                                                                                         2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2595
                                                                                                                                                  Query Match
                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
BM704154
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                   ORIGIN
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumor Gene Index
Indublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Michael J. Brownstein, M.D., Ph.D., Michael R.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Michael J. Brownstein, M.D., Ph.D.,
Email: planck, M.D., Ph.D.
CDNA Library Preparation: M. Bento Soares, Ph.D.
CDNA Library Preparation: M. Bento Soares, Ph.D.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washingron University Genome Sequencing Center
Clone distribution: NOI-CGAP clone distribution information can be
found through the I.M.A.G.B. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 5.78 Std Error: 0.00
Seg primer: -40UP from Gibco
High quality sequence stop: 431.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone lib="NCI CGAP Pr28"
/note="Organ: prostate; Vector: pT7T3D-Pac (Pharmacia)
with a modified polylinker; Plaemid DNA from the
normalized library NCI CGAP_Pr22 was prepared, and se
circles were made in vitro. Following HAP purification,
this DNA was used as tracer in a subtractive hybridization
                                                                                                                                                                         2411
                                                                                                                                                                                                                                                                        2471
                                                                                                                                                                                                                                                                                                                                                                    2531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AI424326 AIAR-1999 MRNA linear EST 28-MAR-1999
                                                                             2351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2591
                                                                                                                                                                                                                                                                                                                  300
                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 489)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
121 TAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGA
                                                                                                                                                                                                  181 TTATTGTGTTTTTAGATGTGGAATTATTTTTTTTTTTATATAAACTCTTATGTGTAAACCCCA
                                                                             TAACCTTGGTTATGTCTTGGCAGCACACAGTGAGCACTAGGCGAACAGTTTTGGA
                                                                                                                                                                         TTATTGTGTTTTTAGATGTGGAATTATTTTTTTGTTATAAACTCTTATGTGTAACCCCA
                                                                                                                                                                                                                                                                     ATATAGAAACTAGATTAAAAGGGAGTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTG
                                                                                                                                                                                                                                                                                                               241 ATATAGAAACTAGATTAAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                 301 GAACTGGAGGCACCTCTGAAAAAAGCAAACTGAAACCAGTGCCCTGGGTCACTGTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACTGGAGGCACCTCTGAAAAAGCAAACTGAAAACCAGTGCCCTGGGTCACTGTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITITATGITGGIATATAAGAAATAAAACTAACCIATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 TTTTTATGTTGGTATATAAGAAATAAAACTAACCTATTAAACCTGAAA 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2093974"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AI424326.1 GI:4270257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ношо варіепв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST
                                                                                                                                                                      2352
                                                                                                                                                                                                                                                                     2412
                                                                                                                                                                                                                                                                                                                                                                 2472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2592
                                                                             2292
                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AI424326/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
```

AW002033

ACCESSION

```
/mol type="memory saptems"
//mol type="memory saptems"
//do xref="taxon:9606"
//clone="UI="CKI-dir-p-12-0-UI"
//tissue type="Retina Foveal and Macular"
//dev stage="adult"
//dev stage="adult"
//lab host="multo"
//lab host="multo"
//lone lib="UI-B-CKI"
//lone lib="UI-B-CKI"
//one="Organ: eye; Vector: pT773-Pac (Pharmacia) with a modified polylinker; Site 1: EcoR i; Site 2: Not I;
//lone lib="double listed elso lesse elso lesse elso lesse elso lesse elso lesse elso les recomalizad CDNA library containing the following tissue elso: Retina Foveal and Macular. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to a macording a Not I site. Double stranded cDNA was ligated to a library adaptor, digested with Not I, and cloned directionally into p7773-Pac vector. The oligomucleotide used to prime the synthesis of first-strand cDNA contains a library as gequence that is located between the Not I site and the (dT) ls tail. The sequence tag for this library is GTCC. This library was created for the program, Gene Discoverty in the Visual System, supported by National
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGGCAGCAATAATTCTATAACTTCCGGGATGCTGAGGGGCGTTCATGGGGAGGACCCT 1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1920 GGCCTCCTCCTCCCCAAGGCATCCTCACCAGTGGTGTCAACAGGAAAAATGGCAGCAAAT 1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1980 ACGCTGCAGGCTGTGGTCTTTCTGCCTTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTT 2039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2040 TCAGCTCTGCCTGGGTGCTGCTGTGGGACCCCTGCTGCCAACCCACACTCCCCCAACA 2099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2100 ATCCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACACTCCCAGCCATAAGCT 2159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2220 CTGTTGACTGGGATTGTGGGCTGGGCTTCTAACTGCTGTGTGACCCAAGACAGCC 2279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 ACGCTGCATGCTGTCGTTTTTTTGTGTCAGGTCAGCTGTACTTAAAGGGACTGTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 TCAGCTCTGCCTGGGTGCTCTGGGACCCCCTGCTGCCAACACCACCACCACCACCACCACCAACA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 ATCCTCTCTTTCCATCCATAACCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 CTGTTGACTGGGATTGTGGGCTGGGCTTGGCTTCTAACTGCTGTGTGACCCAAGACAGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
Clone Distribution: Researchers may obtain clones from Research Genetics (www.resgen.com).
Seg primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 egegecageaaraarreraraacrrecegeargereagegegegrerregegeageacae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2280 ACTTCTCCTCCCTAACCTTGGTTATGTCTTGGCAGCACAGTGAGCAGGTCGGACT 2334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 456.4; DB 4; Length 475;
Pred. No. 3.8e-71;
0; Mismatches 12; Indels 0
                                                                                                                                                  organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eye Institute (NEI).
                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 97.5%;
Matches 463; Conservative
                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

EST 08-SEP-1999

AW002033 455 bp mRNA linear ES's wt83d08.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2514063 3', mRNA sequence.

RESULT 14 AW002033/C LOCUS DEFINITION

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

E 1 (Dases 1 to 455)

S 1 (Dases 1 to 455)

NGI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

NGI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

Tumor Gene Index

L Unpublished (1997)

Contact: Robert Strausberg, Ph.D.

Email: Ggapbs-r@mail.nih.gov
This clone is availabble royalty-free through LLNL; contact the IMAGE Consortium (info@mage.llnl.gov) for further information.

Seq primer: -40UP from Gibboc.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2248 GGCTTCTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCCTAACCTTGGTTATGTC 2307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2308 TTGGCAGCACAGTGAGCAGGTCGGACTAGGCGAACAGTTTTGGATTATTGTTTTTAGA 2367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      155 TGAAAAAAGCAAACCAGAGCCCTGGGTCACTGTTACTCCTATAAGACAGTTTA 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2188 ACTTCTGTCTGTCTCTGGCAAGAATTGGGGGGACTGTTGACTGGGATTGTGGGCTGGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2368 TGTGGAATTATTTTTTTTATATAACTCTTATGTGTAACCCCGAATATAGAAACTAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              275 TGTGGAATTATTTTTTTGTTATATAAACTCTTATGTGTAACCCCCAATATAGAAACTAGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2428 AAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTGGAACTGGAGGCACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215 AAAAGGGAGTCTCTCTGGTTGAAAGGGGAGCTGAGTACCCTCTGGAACTGGAGGCACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          455 ACTICTGICTGICTCTGGCAAGAATTGGGGGACTGTTGACTGGGATTGTGGGCTTGTGGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 395 GGCTTCTAACTGCTGTGTGACCCAAGACAGCCACTTCTCCTCCCTAACCTTGGTTATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2488 TGAAAAAAGCAAACTGAAAACCAGTGCCTTGGGTCACTGTTACTCCTATAAGACAGTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 15.9%; Score 448.8; DB 2 Best Local Similarity 99.6%; Pred. No. 8.8e-70; Matches 450; Conservative 0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2608 TAAGAAATAAAACTAACCTATTAACCCTGAGA 2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35 TAAGAAATAAAACTAACCTATTAAACCTGAAA
                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                       clone="IMAGE:2514063"
 AW002033.1 GI:5848949
                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                               1, .455
                                                     Homo sapiens
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                            JOURNAL
                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 è
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
```

```
g
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                     δ
                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cione_ild="Ul-b-ck0"
//note="Torain eye; Vector: pT7T3-Pac (Pharmacia) with a
modified polylinker; Site_1: ECOR I; Site_2: Not I;
Ul-B-CKO is a cDNA library containing the following
tissue(s): Retina Foveal and Macular. The library was
constructed according to Bonaldo, Lennon and Soares,
Genome Research, 6:791-806, 1996. First strand cDNA
synthesis was primed with an oligo-dT primer containing a
Not I site. Double stranded cDNA was ligated to an ECOR I
adaptor, digested with Not I, and cloned directionally
into pT7T3-Pac vector. The oligonucleotide used to prime
the synthesis of first-strand cDNA contains a library tag
sequence that is located between the Not I site and the
(dT)18 tail. The sequence tag for this library is GTCC.
This library was created for the program, Gene Discovery
in the Visual System, supported by National Eye Institute
(NEI)."
                                               BM686135
UI-E-CKO-aam-b-12-0-UI.rl UI-E-CKO Homo sapiens cDNA clone
UI-E-CKO-aam-b-12-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          University of lowa distribution to computational denomics 375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA Tel: 319 335 8250
Fax: 319 335 8256
Email: bento-soares@uiowa.edu
Tissue Procurement: Dr. Gregg Hageman
CINAL Library preparation: Dr. M. Bento Soares, Univeristy of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa Clone Distribution: Researchers may obtain clones from Research Seq primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /dev stage="adult"
/lab_host="DH10B (Life Technologies) (T1 phage resistant)"
/clone lib="UI-E-CK0"
                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases I to 4317)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/db_xref="teaxon:9606"
/db_cref="teaxon:9606"
/clone="UT-ECK0-aam-b-12-0-UI"
/tissue_type="Retina Foveal and Macular"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                             BM686135.1 GI:18996031
                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                             97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8889548
                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
COMMENT
RESULT 15
BM686135
                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
```

1922 CCTCCTCCCCCAAGGCATCCTCACCAGTGGTGTCAACAGGAAAAATGGCAGCAAATAC 1981

15.5%; Score 436; DB 4; Length 437; 99.8%; Pred. No. 1.7e-67; tive 0; Mismatches 1; Indels

Best Local Similarity 99.8 Matches 436; Conservative

장 원

Š

Query Match

0; Gaps

```
1042 AGCTCTGCCTGGGTGCTCTCTGGACCCCCTGCTGCCAACCCACCACTCCCCCAACAAT 2101
                                                                                                                                                                                                                                                                                             2102 CCTCTCTTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTGA 2161
                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
61 CCTCCTCCTCCCCAAGGCATCCTCACCAGTGGTGTCAACAGGAAAATGGCAGCAAATAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 GITGACTGNGATTGTGGGCTGGGCTTGGTTAACTGCTGTGTGACCCAAGACAGCCAC 420
                                                               1982 GCTGCAGGCTGTGGTCTTTCTGCCTTTTGAAAGGGTCAGCTGTACTTAAAGGGACTGTTTC
                                                                                             241 CCTCTCTTCCATCCATATCCCCCAGTATGGACCTTCCACAACTCCCAGCCATAAGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                             GTTGACTGGGATTGTGGGCTGGGCTTGGCTTCTAACTGCTGTGTGACCCCAAGACAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: June 29, 2005, 05:14:54 Job time : 6078.87 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2282 TICICCICCIAACCIT 2298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 Trerecreectaacerr 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2222
```

This Page Blank (uspto)